WORLD-RADIO

DOMINION & FOREIGN PROGRAMMES

The Official Foreign & Technical Journal of the B.B.C.

Vol. XIV No. 352 Registered at the G.P.O. as a Newspaper FRIDAY, APRIL 22, 1932 Three Pence

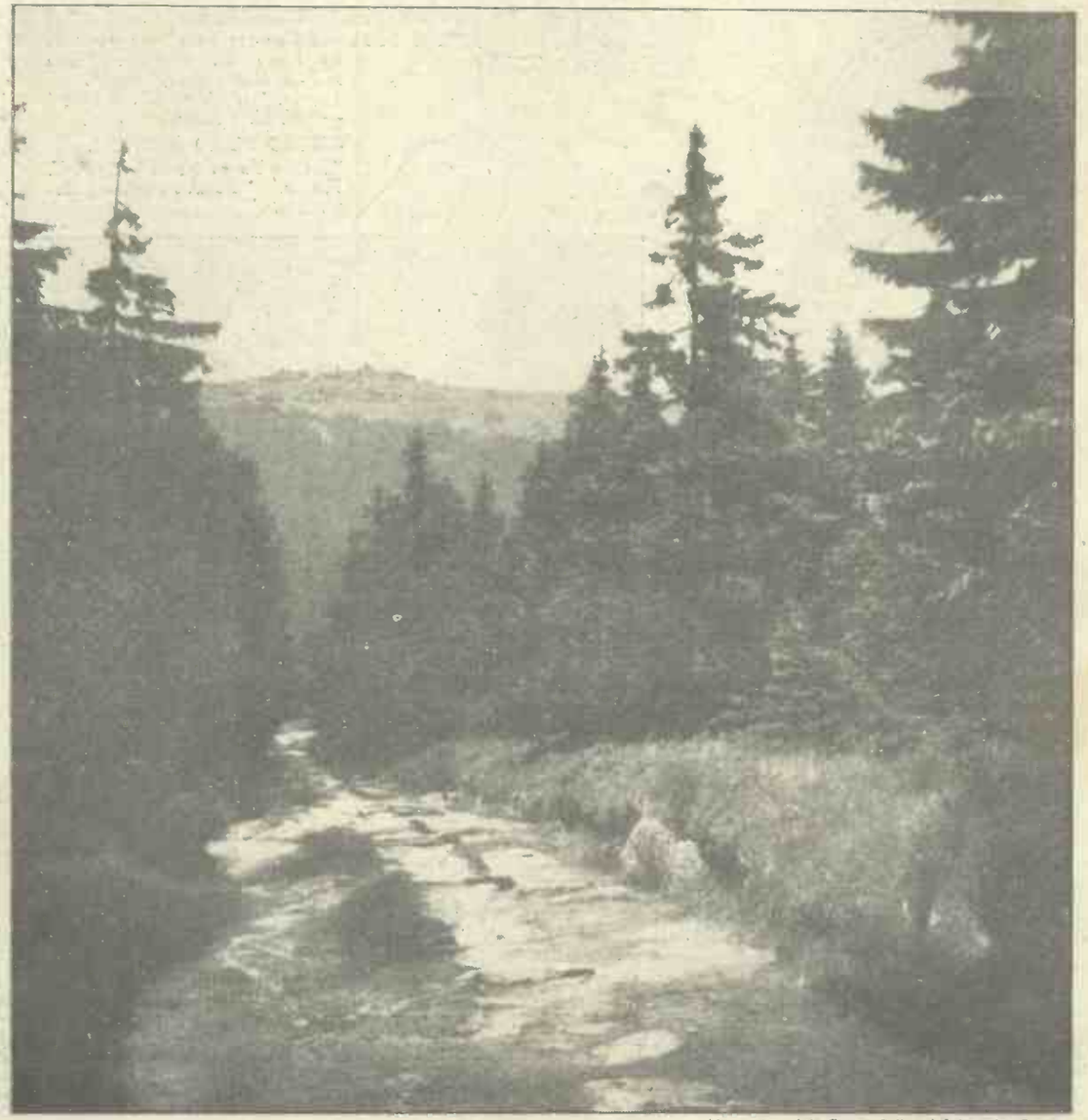
MUSIC FROM OTHER LANDS
XI—FRANCE
By G. JEAN-AUBRY

THE STORY OF BROADCASTING HOUSE: ELECTRICAL PLANT AND POWER SUPPLY

ULTRA SHORT-WAVE DIRECTION FINDING

LIST OF STATIONS IN ORDER OF FREQUENCIES AND WAVELENGTHS

WHICH STATION WAS THAT?
(Replies to Queries)



(By courtesy of the German Railways' Information Bureau

"Goethe's Way," leading up to the Brocken (Harz Mountains), and to the "Witches' Dance Place," where the Walpurgis Night Festival takes place on Saturday, April 30.

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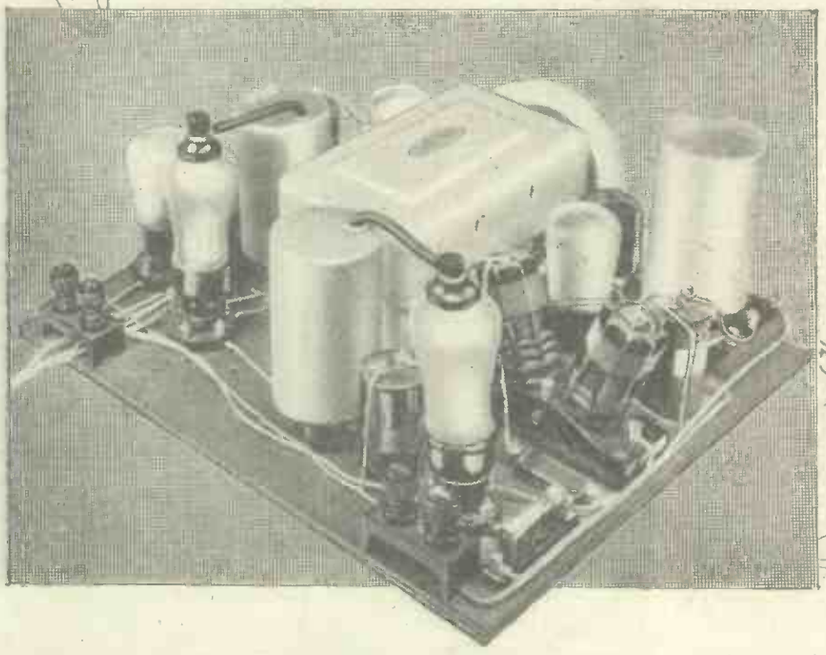
GENERAL ARTICLES.

"Empire Programmes," by Alan Hunter. "Radio Relay Services," by K. Ullyett.



WIRELESS MAGAZINE

PRICE 1/- ON SALE TO-DAY EVERYWHERE

WORLD-RADIO

Vol. XIV No. 352 Registered at the G.P.O. as a Newspaper. FRIDAY, APRIL 22, 1932 THREE PENCE

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The Blessing of a Substitute

ONE after another, the old opponents of broadcasting have had to admit that it is not so black as they tried to paint it. Sir Thomas Beecham, in the flush of his recent successes in New York, has so far modified his former severity as to call wireless "a blessed substitute"—though still only a substitute—for "the thrill of hearing the original in the concert-hall." As deputy for Toscanini, who is on the sick list, Sir Thomas has conducted a season of the New York Philharmonic Concerts, and several of them have been broadcast. He has scored one triumph after another, and would have prolonged his stay in the States had not the forthcoming Opera Season at Covent Garden demanded his presence in London. It was just before leaving America that he gave the above-quoted view of wireless in a signed article in one of the leading New York papers, and his many admirers there and at home—particularly those who know him only by wireless—are sure to welcome such a pronouncement from him. Sir Thomas is careful to explain that music which "is required to run the whole gamut of knobs" must remain "a flatland of interpretation"; he thinks that "broadcasting, even the best of it to-day, is yet not nearly good enough," and fears that "perfection of tonal reproduction is likely to remain for ever the dream of scientists."

"Each instrument of an orchestra," he points out, "when any great composition is being played, speaks in complete harmony with the ideas of the composer. With orchestras of 100 instruments on the platform, frequently the entire 100 instrumental voices are speaking together. Whatever the number of microphones used to catch the tones of an orchestra for broadcasting purposes, we must not lose sight of the fact that in thousands of cases only one loud-speaker must vibrate in an almost infinite number of ways to recreate the tones for the listener. This is quite impossible.

"It is as preposterous to expect one man, possessed of only one tongue, to correctly interpret and reproduce the sound of 100 voices singing together. Radio, like the man of but one tongue, cannot possibly create the sound of the orchestral choir."

Sir Thomas does, nevertheless, pay handsome tribute to the remarkable scientific progress which radio transmission has already made, and concludes his article by urging all who cannot attend concerts to regard their receiving sets as a comfort and a solace. "Even the substitute," he adds, "is a blessing, and for that let us be grateful."

Viâ Ether

SUNDAY, April 24, when the elections for the Prussian Diet take place in Germany, is likely, I am told, to provide listeners with the longest late dance programme that country has ever transmitted. The Berlin Funk Orchestra begins with a concert at 7 o'clock, at which Mauritz van den Berg will be the solo violinist, and Adelheid Armhold and Ludwig Hofmann will sing. After the general news, at 10 o'clock, the Gebrüder Steiner dance band will play at intervals until dawn. These particular elections, my informer states, are of momentous issue to Germany, as they determine whether or not the Socialist majority, which has hitherto governed Prussia, will be forced to make way for the Fascist, Adolf Hitler. Figures, as they come in, will be compared by the announcer with that of the Presidential Election a fortnight ago. As there are nineteen parties which will have to be mentioned—no matter how poor the chances of thirteen of them are—the night will be far advanced before Germany retires to rest. According to April statistics, Germany now has 4,168,440 citizens holding wireless licences, the greater proportion of whom will be listening on Sunday night, as well as many Austrians who, more than the rest of Europe, are politically affected by all that occurs within the borders of Germany. Prussia is the "key" state within the German republican federation, and dictates the national policy.

* * *

Walpurgis Night

MANY readers may have listened, in past years, to Norag's relays of the Walpurgis Night Festival from the Harz Mountains. Once again this transmission is announced—for SATURDAY, April 30—and, in view of this being Goethe year, I have no doubt that the approaching festival will be made more than usually interesting. According to the legend—which Goethe has immortalised in his *Faust*—on the eve of May Day the witches hold high revel on the Brocken—the summit of the Harz Mountains, where, until cock-crow, diabolical scenes are enacted. Little of the full flavour of such scenes should be lost in the hands of the modern broadcasting producer, with his armoury of appropriate "noises." Goethe, who was a notable lover of nature in general, and of mountain scenery in particular, has portrayed in a wonderful manner the atmosphere of magic and of the romantic in his descriptions:—

> "Uhu! Schuhu! tönt es näher,
> Kauz und Kiebitz und der Häher,
> Sind sie alle wach geblieben?
> Sind das Molche durchs Gesträuche?
> Lange Beine, dicke Bäuche!"

To have travelled through these regions is to understand how the poet—a Pantheist—visualised this ancient legend, which, according to some, dates back to pagan times.

Operas for Next Week

HAYDN is less generally known as an opera composer, yet he has written several very charming works which have stood the test of time. During next week listeners will have an opportunity of hearing his best-known *opera buffa*, *The Apothecary*, twice—*i.e.*, on SUNDAY and THURSDAY from Prague and Stuttgart-Frankfurt respectively. On Thursday evening another Haydn opera, *Orlando Paladino* (or "Ritter Roland," as it is mostly called in Germany) is to be broadcast from Leipzig and relayed by Königs Wusterhausen. An interesting operatic broadcast, which will also be relayed by the Swiss stations, is announced from Vienna for THURSDAY next. That station is then to relay from the Opera House one of Verdi's earliest operas, *I masnadieri* (The Robbers), based on Schiller's *Die Räuber*.

* * *

Broadcast Libel

ABOUT a year ago, *World-Radio* published details of a Canadian Bill, called the Civil Responsibility Radio Broadcasting Bill, then being drafted, which sought to make the owners of a broadcasting station liable for slander committed by any person broadcasting from their station. I now learn that the New York Legislature has before it a measure designed to place broadcasters under the same responsibility for libel as newspapers. The Bill, now before the Codes Committees in Senate and Assembly, will probably be given a public hearing. Similarly to the section covering editors and publishers, the measure provides that "every person, firm, or corporation owning, controlling, or operating a radio station broadcasting programmes to the public is chargeable with the broadcast by radio of any matter broadcast to the public from such broadcasting station." Immunity for broadcasting a true report of public official proceedings would be granted, and a broadcasting station also would be protected against persons delivering false statements intended for broadcast. These persons would be liable to prosecution for a misdemeanour, as also would those who threaten to broadcast a libel or who accept money to prevent the broadcasting of a libel.

* * *

A Right of Reply

IN FRANCE any person "attacked" in any way in a newspaper has a "right of reply," and for the purposes of such reply, may insist upon being accorded equal space and equal prominence to that occupied by the "attack." Some little time back powers were sought to extend the "right of reply" to broadcasting, but, although legislation does not, so far, control this facility in connexion with broadcasting, nevertheless, in a recent instance (details of which were given in last week's *World-Radio*) the director of a French broadcasting station permitted a playwright, who had objected to broadcast criticisms of his play, to read before the microphone a review, in praise of his work, which had appeared in a newspaper.

ETHERVIATOR

Music from Other Lands

XI—France

By G. JEAN-AUBRY

ALTHOUGH, in former times, French music enjoyed periods of great activity, both as regards the polyphonic style of the fifteenth and sixteenth centuries, as well as the richly varied harpsichord school which flourished during the reigns of Louis XIV and Louis XV, from the middle of the eighteenth century to the middle of the nineteenth, the music of France, whether symphonic, vocal, or instrumental, cannot be said to have possessed an individual character of its own. With the exception of Berlioz—the unique genius of his time—French musical activities, down to 1860, were almost entirely directed towards the theatre, to the feeble imitation and debasement of the distinctive charm with which a Dalayrac or a Inonsigny endowed *opéra-comique*, or to the zealous emulation of the lesser virtues of grand opera, as exhibited by Rossini and Meyerbeer. It is all the more surprising, therefore, that, during the second half of last century, a definite school of composition should suddenly have arisen, essentially French in style and abounding in variety.

[Rischgitz

Berlioz

Though it is always risky to hold political events responsible for shaping the history of art, it must be admitted that the moral shock caused by the disastrous war of 1870 deeply influenced the minds of all young French musicians. The younger generation conceived a higher and more noble ideal of musical art, no longer delighting in the solitary successes of the theatre. They endeavoured to find national expression in music, and, to that end, studied the most admirable examples of classic German and Italian art, and the neglected masterpieces of their own. This formed a solid foundation; and upon it they constructed musical works which, though differing in aim and method, still contained, in a greater or lesser degree, the essential qualities of French temperament and feeling.

Almost simultaneously appeared the careful, talented, if somewhat academic, works of Saint-Saëns; the sincere, lyrical compositions of César Franck, and the tender, delicate, and emotional writing of Gabriel Fauré. These are the three starting-points of modern French music, to which must be added the strong and arresting personality of Emmanuel Chabrier.

[Henri Manuel

Saint-Saëns

Gabriel Fauré

César Franck

These various composers, together with their successors, shared one common characteristic; they sought inspiration in architecture and painting, rather than in philosophy and literature. All the best French works of our day are imbued with the same desire for harmonious proportion, the same delight in the economy of means, and the exploiting of instruments to the full. At the same time these works exhibit a like partiality for earthly phenomena, the same fascination for competing with the colour and form of things. In this respect no one has equalled Claude Debussy who, with the daring of tradition, succeeded in re-shaping the very essence of music, rendered it more pliable, capable of finer shades of expression; and, in so doing, greatly influenced not only modern French music, but the whole contemporary music of the world.

In France to-day there are undoubtedly four living masters. M. Paul Dukas, whose *Apprenti-Sorcier* long ago made him famous; M. Maurice Ravel, whose every work displays ingenuity of writing and certainty of touch, and who has bestowed upon all the manifold forms of the dance—waltz, bolero, pavane, minuet, sarabande, etc.—some new colour and unexpected grace; M. Albert Roussel, the composer, amongst other things, of *Evocations* and the *Suite pour orchestre*, witness of musicianship obsessed with the flamboyancy of the East coupled with a turn for truly Western rhythm; M. Florent Schmitt, who combines harmonic refinement with a forceful expression akin to violence, as shown to greatest advantage in *Psalm XLVI* and the *Tragedy of Salome*.

Following on these composers, all of whom to-day are over fifty years of age, a new generation has sprung up, of whom it is difficult to give a general outline. The outstanding figure amongst them would seem to be M. Jacques Ibert who, with his stage works, *Angélique* and *Le Roi d'Yvetot*, as well as *Les Rencontres* and *Escales*, intended for the concert-room, has proved himself the possessor of a delicate and natural musical talent, informed with the pure joy of life. Coupled with him, the two strongest personalities in present-day French music are indisputably M. Francis Poulenc and M. Arthur Honegger, who between them form the most complete contrast possible. M. Poulenc's unforced inspiration has rediscovered French popular song, which he imitates with ease, in all its simplicity, light-heartedness and malice. Nothing could be more fresh, younger in spirit and more essentially French than the music of M. Poulenc. If his style is occasionally somewhat careless, his distinctive melody and facile charm are virtues not commonly found in this age of complicated music. On the other hand, Arthur Honegger combines French and Germanic tendencies which results in austere works of impetuosity and passion, such as *Judith*, *Horace Victorieux* or *Pacific*, and more simple productions, tender and moving, such as *Pastorale d'Eté*, the *Chant de Joie* and *Amphion*. The personality of M. Honegger is a complex of various elements and forms a figure of the highest interest in modern music.

For prolific output and ease of production, as well as inequality in musical value, there is no one to-day who surpasses M. Darius Milhaud. His most successful efforts would seem to be those which reveal his deep sympathy for the Jewish race; or those such as *Les Choéphores*, in which he indulges in a tragic violence which, though inspired by subjects taken from Greek drama, might equally well fit the wildest pages of the Bible. M. Georges Auric, for some time an awkward admirer of the vigour of Chabrier, has now devoted himself almost exclusively to writing music for the films, and has not fulfilled general expectations. It is to be hoped that his forthcoming *Symphony* will come up to the standard he set himself in the ballets *Les Fâcheux* and *Matelots*.

[E.N.A.

Claude Debussy

Mlle Germaine Tailleferre and M. Louis Durey, two young composers of great promise, relapsed into silence some years ago—not definitely, it is to be hoped. Amongst newcomers must be mentioned M. Marcel Delannoy, who came into prominence by a little opera entitled *Le Fou de la Dame* and a *Quartet*, performed last year at the International Music Festival at Oxford, and revealed a rich and well-balanced style. Jean Cartan, still quite a young man, is the author of a *Duet for Flute and Clarinet* which reveals the touch of a born musician, and an artist already master of instrumental possibilities.

In view of the extraordinary promise shown at the start of the present century, French music now seems to have gone somewhat astray. Tendencies, dimly visible, the revival of *opéra-comique*, for instance, seem to have faded away. This is regrettable. Everything points to the fact that grand opera, as it existed from Rossini to Wagner, has had its day; but it remains to be proved that a theatrical art, more lyrical in form, less pretentious and in lighter vein, is neither possible nor to be desired. Handled by honest and intelligent musicians, *opéra-comique* or the "comédie musicale," might easily return to favour, and by virtue of feeling and tradition, the younger school of French composers would be more likely to succeed in this undertaking than any other. So far we have been disappointed, and the example set by M. Jacques Ibert in his *Angélique* still remains to be followed. But the crisis through which the great lyrical stages of the world are passing at the present time seems to indicate some such combination of music and drama, though as yet it is barely discernible.

[Photos: E.N.A.

Maurice Ravel

In the realm of chamber music no first-class works have appeared in France during the last few years, with the exception of those I have mentioned; whilst, as regards symphonic music, the boldest, most original and more lasting work has come from men getting on for sixty—such as M. Ravel's *Concerto* and his *Boléro*, or the *Troisième Symphonie* by M. Albert Roussel, rather than from the younger generation. This is a situation which does not apply to music alone; in the field of literature, fatal facility and undue haste in post-war artistic production is equally reflected. But there can

(*Continued at foot of column* 3, *page* 789.)

Ernest Ansermet

BORN at Vevey, on the shore of the Lake of Geneva, one of the most beautiful spots in Europe, Ernest Ansermet spent his boyhood, and had his early training, in his native Switzerland. As a student at Lausanne University, and afterwards at Paris, he distinguished himself in mathematics, and while yet a very young man for such a task, returned to his original Alma Mater as professor of that intriguing subject. It may well be that his thorough familiarity with so exact, and withal exacting, a science, accounts largely for the clarity with which he can interpret the most complex modern scores. But an enthusiastic interest in music went hand in hand with his other studies, and that, too, he cultivated with the thoroughness which is characteristic of him. And, having once decided that music, and not mathematics, was to be his life-work, he enrolled as a pupil with two of the greatest living masters of conducting—the branch of music he was to make his own; Nikisch and Weingartner were both proud to count him a disciple. He studied composition, also, with Ernest Bloch. In 1914, at the age of thirty-one, he was appointed Conductor of the Casino Concerts at Montreux, succeeding Francesco de Lacerda, who had been one of his first teachers: a year later he followed Stavenhagen as Conductor at Geneva. It was then that he entered on the association with the late Serge Diaghilev, in the course of which he covered a wide part of the habitable globe—North and South America, as well as most of Europe. He was responsible for the musical side of many of the ballets of the famous Corps, including the first productions of such notable works as Stravinsky's *Pulcinella*, *Chant du Rossignol*, *Renard*, *Les Noces*, Satie's *Parade*, and Falla's *Tricorne*, and in that way earned the reputation of being one of the ablest and most sympathetic exponents of present-day music. But, though he could easily claim to have done more than any other conductor in furthering the cause of the young composer,

he is no less sincerely in sympathy with the great classical masters: his conducting of the Orchestre de la Suisse Romande, which he founded in 1918, of the Orquesta Filarmonica of Buenos Aires, and the Orchestre Symphonique de Paris, of which he was appointed first conductor on its establishment in 1928, has made that abundantly clear. None of his official posts, however, keeps him so close a prisoner that he cannot make pretty frequent journeys abroad, and most of the world's great orchestras have welcomed him as guest-conductor. He is one of those whom players not only respect whole-heartedly as a master of his job—and nowadays, when the standard of orchestral playing is everywhere so high, no conductor who knows less than the whole of his task need ever hope to escape being found out—but whom they like and admire for his uniformly courteous and thoughtful treatment of them. Audiences everywhere, too, are in his debt for the new light he has often thrown on the dark places in many a modern score, and for the sane clarity of his readings of the classics. He has impressed many a country, moreover, by his intimate knowledge of its own most recent doings. There was one occasion in England, for instance, when no native conductor was available to take charge of a programme of modern English music. M. Ansermet came over from Paris, at very short notice, and presented all the music in a way which earned him the sincere thanks of every one of the composers.

[Our picture is reproduced from a pencil drawing by Madame Charles Wiener of Brussels, whose nimble hand has thus crystallised strikingly characteristic moments in the conducting or playing or singing of many great artists. Her drawings are usually made during rehearsals or concerts, with no suggestion that her originals were posing for them, and in almost every case they have signed their portraits, in token of their admiration for them. We hope to present further examples of Madame Wiener's art in future issues.]

Letters to the Editor

Coincidences in Listening

To the Editor of WORLD-RADIO

SIR,—On my receiver, Toulouse is at 77 degrees, and on the long waves, Eiffel Tower is at the same figure. Listening to Toulouse at 10 p.m. on 6th inst., I heard M. Tardieu making an election speech, and I switched over to the long waves without premeditation, and heard the same speaker.

I continued to switch backwards and forwards and listened to the speech alternately on 385 m. and 1,445 m. without touching the tuning dial, which was a curious experience, due to the same tuning being correct for two stations on different wave-bands, and the same speech being relayed on both transmissions.

Yours faithfully,
F. FROOM, Lt.-Col.

Lobswood, Fleet, Hants, April 7.

[Such coincidences are not uncommon. Possibly other readers have interesting experiences of a similar nature.—ED.]

U.S.A.—Switzerland Transmission

To the Editor of WORLD-RADIO

SIR,—I am wondering if any of your many readers picked up the international short-wave transmission by the NBC of America to Landessender in Switzerland on Sunday night (April 10) at 7.15 p.m., and, if so, whether they noticed the beautiful clarity of the reception from the retransmission by the Swiss Station.

This is rather a remarkable feat, considering its having been picked up from a short-wave transmission. I presume it is not always so successful.

I am, Sir;
Yours faithfully,
H. H. DAWSON.

Grimsby, Lincs, April 11.

MUSIC FROM OTHER LANDS

(*Continued from page* 788.)

be no doubt that the strenuous times we are undergoing at present, whilst restricting output, will inspire the coming generation to new thought and a more personally honest outlook; thus maintaining the magnificent revival which, since the beginning of this present century, after many years of silence, restored France to the front rank of musical nations.

Wireless on Russian Railways

The Soviet Press comments on the great success of the introduction of wireless receivers in the trains between Moscow and Leningrad. Within the past few weeks loud-speakers have been installed, by which travellers are kept informed of the names of the stations *en route*, and the time which will be spent at each. News, musical performances, and propaganda are also transmitted. It is understood that other train services are to be similarly fitted in the near future.

Dominion and Foreign Broadcasting Intelligence

Australian Government Broadcasting Bill Withdrawn

(From our Australian Correspondent)

Although opinion in Australia is now practically unanimous in favour of the National broadcasting service being controlled by the Government, such a storm of protest broke out when the Government introduced the Australian Broadcasting Commission Bill that the bill was withdrawn during the second reading stage.

The trouble started when the printed bill, differing from all the forecasts, was circulated among members and in broadcasting and trade circles. It was found that clause 5 read :—

" For the purpose of the Act there shall be a Commission charged with the general administration of this Act, subject to such directions (if any) as are from time to time given by the Minister."

This, of course, gave the Postmaster-General complete power, although the present Government was elected on a policy of restricting Government enterprises. The present Postmaster-General (Mr. Fenton) is a recent convert from the Labour Party. However, the director of postal services, who is the executive head of the post office, issued a statement to the Press saying that the clause had crept into the bill by some unfortunate mistake and that it was never intended and would be withdrawn. But it has been pointed out that the clause is worded exactly as in a previous Bill drafted during the Labour Party's term of office but never presented to Parliament.

The Bill provided that the Commission should consist of five persons (one was intended to be a woman), the chairman to be paid £500 a year, the deputy chairman £400, and the others £300 each. On such small salaries, opponents of the Bill declared, the only type of Commissioners obtainable would be either wealthy men who would be occupied with other interests, or third-rate persons. Thus actual control would remain with the Post Office. The Commission was to be given power to engage in any business pertaining to wireless. This was read by the newspapers to mean the publication of wireless or even general newspapers in opposition to existing publications. Hence a further series of protests. By the wireless trade it was understood to foreshadow the likelihood of the postal workshops engaging in the manufacture of radio receivers to be sold in competition with those of private manufacturers.

The Bill empowered the Government to compel the Commission to broadcast any propaganda throughout the national chain. This clause aroused some trepidation, but was generally regarded as necessary in the public interest.

Although the Bill provided that " the Commission shall not broadcast advertisements in general," the next clause provided for " sponsored programmes accompanied by acknowledgments to the persons by whom they were made available." This aroused the resentment of the B class (privately owned) stations, which live by advertising and sponsored programmes and receive nothing from listeners' licence fees. The B stations are calling upon listeners to send telegrams of protest to their parliamentary representatives.

The Bill authorised the establishment of news agencies in any part of the world, and would exempt the Commission from all taxation. It retained in the Post Office control of the technical side of broadcasting.

After the Bill was explained in the House by the Postmaster-General and supported by the late Postmaster-General, the debate was adjourned to permit of meetings of the Government Party to deal with the objections raised. The opposition was led by Mr. W. M. Hughes (formerly Prime Minister) who denounced the Bill as pure socialism, and by Mr. F. H. Stewart, the proprietor of a B class station. Almost the entire Government party, it transpired, was opposed to the Bill, which apparently had been seen by no one except the Postmaster-General and his advisers in the Postal Department.

It was finally decided to withdraw the Bill. This means that it cannot come up again till next session—in a month's time.

U.S.A.-British Programme Interchange

(From our Washington Correspondent)

The interesting series of trans-Atlantic broadcasts, which has just been arranged between the Columbia Broadcasting System and the British Broadcasting Corporation, is worth comment as being something " different " in international exchange broadcasts. Hitherto, most foreign programmes have been in the nature of addresses by eminent people on a current topic, concerts by leading symphony orchestras, dance music, with an occasional sketch. They have all lacked the background of local colour, and distinctive national life. They have conveyed little or no idea of how the rest of the world lives.

The series just begun is intended to supply this human touch. The American programmes to England will attempt to show certain aspects of every-day American life, and the return broadcast from England will develop the same theme from English life. Four main headings have been chosen, under each of which the two broadcasting systems will build one programme. They are as follows :—

" The Eternal Schoolboy," two programmes, one English and one American, showing school life in each country :

" The Common Heritage," and " New England." The English programme will consist of Elizabethan music by Purcell and other composers, while the American broadcast will consist of a dramatised version of Longfellow's *Miles Standish*.

In " The Great Unlicked," America will tell England something of its universities and college life among the students, and an English broadcast dealing with the same subject will be received over here a fortnight later.

Vaudeville and musical comedy will be typified by two programmes entitled " Leicester Square " and " Broadway."

The first American broadcast from the Columbia studios was on April 14, and the English reply programme will be heard on Friday, April 22.

In pointing out that these programmes are intended to dig deeper into the work-a-day lives of the two great English-speaking peoples than has hitherto been the case in trans-Atlantic broadcasts, Mr. William S. Paley, President of the Columbia Broadcasting System, said : " The ties between Great Britain and the people of North America are particularly close, and the fact that in the British Isles, the United States, and Canada there are more than 175,000,000 people speaking the same language, makes it possible to build programmes for exchange that will convey ideas in words, as well as music."

CANADA

Licence Period Extended

(From Our Montreal Correspondent)

Following a debate in Parliament, during which considerable opposition was expressed to the increase in the radio receiving licence fee from 4s. 2d. (at par) to 8s. 4d. per annum, it is announced that owners of receiving sets will be given until June 1 to obtain their new licences, which were supposed to be taken out not later than April 1.

ARGENTINA

New Station for Buenos Aires

A new broadcasting station, to be constructed by Marconi's Wireless Telegraph Company at Chelmsford, for Buenos Aires, will incorporate all the latest developments in the design of broadcasting transmitters, including crystal and valve frequency control and low-power modulation. It will operate on a power of 20 kW., and will serve a large area round Buenos Aires. It is to be operated by Radio Excelsior of Buenos Aires, and regular transmissions are expected to begin early next year.

AUSTRIA

Erection of New Vienna Station

(From our Vienna Correspondent)

The work of construction has already begun on the new Vienna station on the Bisamberg hill, which is on the opposite side of the Danube from the Leopoldsberg and Kahlenberg overlooking Vienna. The station will have a power of 100 kW., and will therefore be among the most powerful in Europe. Erection upon the site on the bleak Bisamberg could not be started until winter gave way to more favourable conditions. The masts will be of composite construction—of steel and timber. The total cost of the station is estimated at about forty thousand pounds, labour representing nearly one-half of this sum. A German firm has the contract, but Austrian labour must be employed wherever possible.

GERMANY

Increased Licence Figures

The number of licensed listeners in Germany has now passed the 4,000,000 mark, being 4,168,440 on April 1 last. This figure included 356,837 unemployed, blind persons, and war-disabled, etc., who do not pay licence fees. The current quarter shows an increase of 114,711 paid and 72,877 free licences as compared with the respective figures for January 1. Of the four million listeners, more than one million are provided for by the *Funk-Stunde*, Berlin.

IRISH FREE STATE

Broadcasting and the Eucharistic Congress

(From a Correspondent)

The work of erecting and equipping the new Irish Free State high-power broadcasting station at Athlone is to be speeded up. Although the contracts had specified six months for the work, the International Eucharistic Congress, to be held in Dublin in June next, is regarded of so great an importance that the completion of the new broadcasting station within the next three months is to be hastened. In undertakings of this magnitude there is always the possibility of an unforeseen and unforeseeable hitch, but the Irish Free State Minister of Posts and Telegraphs is satisfied that this likelihood is remote. The regular broadcasting of the Dublin programme will not be entered upon until the autumn, as a good deal of finishing-off work will have to be done at leisure when the immediate urgency for completion no longer exists. The importance of the Dublin Eucharistic Congress may be gathered from the fact that it will be attended by 11 Cardinals, 33 Archbishops, 107 Bishops, 8 Assistant Bishops, 15 Vicars Apostolic, and 16 Abbots, together with deputies from every Roman Catholic order in the world.

TECHNICAL SECTION

Broadcasting House

3.—Electrical Plant and Power Supply

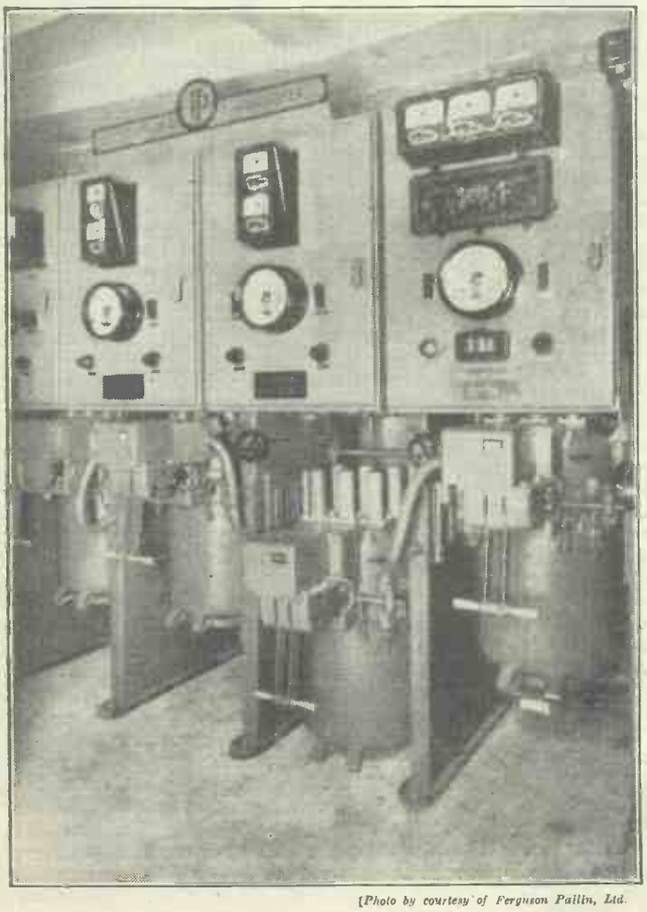
(*Continued from page 741, April 15*)

THE nature of the work at Broadcasting House complicates the question of power supply, wiring, and installation of plant. The necessity for securing continuity of power supply in all circumstances, the prevention of electrical and acoustical interference by electrical machinery, and the complete electrical isolation of broadcasting circuits were the three major points which required special consideration.

To fulfil the first of these requirements, it was necessary to guard against the failure of local mains, and arrangements were made with the St. Marylebone Borough Electricity Dept., to feed Broadcasting House from both their high-tension and low-tension supply networks. In addition to these precautions, other sources of power supply have been provided. It is not necessary to emphasise the fact that if lighting failed in the studios or control room, serious dislocation to the broadcasting service would inevitably occur. For this reason, a scheme of emergency supply has been adopted. This incorporates two sources of power, the first consisting of a lead storage-battery of 240 volts, 1,000 ampère-hour capacity, and the second a 100 kW, 3-phase, 50-cycle Diesel generating set. At first sight, it would appear that one of these plants might have been omitted, but consideration of the problem will show that the two are complementary.

It will be realised that in the event of a complete failure of supply from outside sources, some time would elapse before the emergency plant could be started and the lighting restored. It is to cover this period that the emergency battery has been provided. The battery feeds a system of secondary lighting points which have been installed in studios, control room, corridors and staircases. These points, which are permanently switched on during the hours of darkness in addition to the regular lighting, are designed to give sufficient illumination to enable people to move about the building without difficulty. Thus, the building cannot be put into complete darkness by a mains failure.

As a further precaution against the interruption of work in studios during the short period which it will take to start the emergency plant, change-over switches have been provided to connect the studio main lighting circuits to the battery. Thus a full lighting service can be restored at all important points, the only delay being the time necessary to operate the change-over switches. If the breakdown should be of long duration, then the emergency generating set would be started and the supply restored to lighting services, and the essential portions of the ventilating plant.



[*Photo by courtesy of Ferguson Pailin, Ltd.*

H.T. Switchgear controlling three incoming 6,600-volt, 3-phase feeders

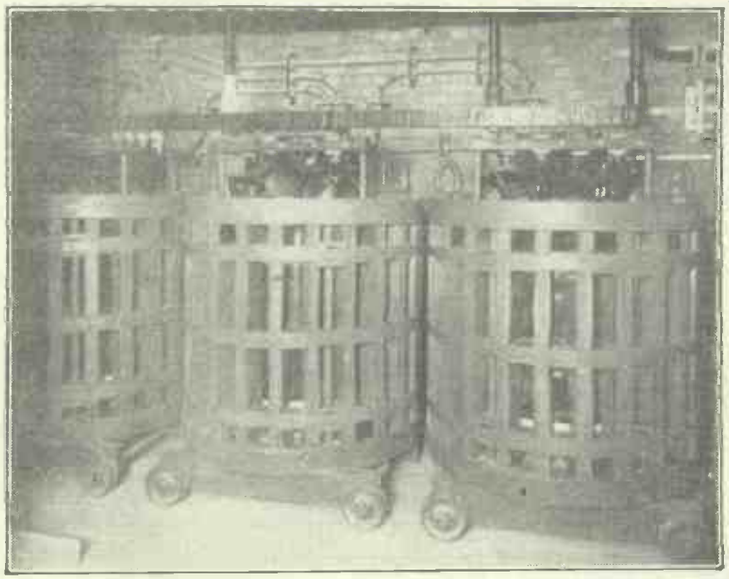
The emergency set has not sufficient output to supply the lighting of administrative offices and the whole of the air conditioning plant, but it is sufficient to give an adequate supply for the essential services of broadcasting which could be run indefinitely on a full basis without outside sources of electrical energy.

The St. Marylebone supply mains enter the switch room, which is situated in the sub-basement, three floors below ground level. This room is divided into four fire-proof sections, containing respectively the supply switchgear and transformers, the main distribution switch-gear, the emergency battery switchboard, and the emergency generating set and battery-charging motor-generator.

The outer wall of the switch room is actually under the pavement, and the presence of steel stanchions make it difficult to arrange a satisfactory layout of the plant. The layout achieved, although far from ideal, has the virtue of being compact and consistent. Since the switch room is three storeys below street level a section of the pavement above has been made removable. This covers a hatchway, eight feet square through which all the plant to be described was lowered.

Main Transformers and Switchgear

The St. Marylebone Electricity Dept. have run into the building three 6,600-volt, 3-phase feeders, one of which is connected directly to their generating station. There are in addition three 415-volt, 3-phase feeders. The high-tension and low-tension feeders are connected in parallel through circuit breakers to their respective busbars, which are coupled by



[*Photo by courtesy of British Electric Transformer Co., Ltd.*

Main Power Transformers, each rated at 500 K.V.A.

three single-phase transformers, each rated at 500 K.V.A. The high-tension switchgear, transformers and low-tension switchgear are situated in separate fireproof cubicles ranged round the outer wall of the switch room, ventilation for these cubicles being provided from the main ventilating system.

This system of feeders ensures that Broadcasting House is almost immune from power supply failure. Provided the generating station is unaffected it is possible to feed the building by the direct high-tension feeder and to isolate the remaining high-tension and low-tension feeders by tripping the appropriate circuit breakers. The switchgear controlling the incoming high-tension mains consists of four circuit breakers and associated equipment. The circuit breakers are of the oil immersed, round-tank type, and are designed for a rupturing capacity of 250,000 K.V.A.

The metal-clad units are fully interlocked, and thus provide complete protection for human life and reduce to a minimum the possibility of error in operation. The protective equipment on the units comprises translay protection on two feeders, against both phase and earth faults, pilotless directional protection on the third feeder, and the usual overload and protective gear on the transformer.

The three single-phase 11,000/415-volts, 500 K.V.A. transformers are of the air-cooled type. The three incoming low-tension feeders

are protected by an air-break circuit breaker in each phase. The whole of the sub-station equipment is the property of the St. Marylebone Corporation Electricity Department, and was installed under the supervision of their engineers.

From the low-tension busbars on the St. Marylebone's switchboard, four fibre-insulated cables, of two square inch section for the phases and one square inch for the neutral, are connected to the B.B.C.'s main intake switchgear, consisting of a 1,500 ampère, 3-phase oil circuit-breaker and isolator switch mounted in a steel cubicle. The circuit breaker is provided with the usual overload and no-volt trips. The isolating switch and breaker are mechanically interlocked, and the door cannot be opened unless the isolator is opened. Three ammeters, a power-factor meter, and a swinging bracket type voltmeter are mounted on the cubicle.

Feeder Switchgear

The switchgear controlling the feeders to the various services in the building is divided into five sections, namely, studio lighting, general lighting (offices, etc.), heating, power, and secondary lighting and battery Control. The first four sections are grouped together in one compartment with the main intake circuit breaker, while the secondary lighting and battery control switchgear is placed in a separate fire-proof cubicle which is provided with separate access to the main corridor. This switchgear is of the totally enclosed, fully interlocked, oil immersed type, each individual circuit breaker being provided with overload and earth breakage protection. The oil circuit breakers are of the vertical draw-out pattern, permitting the adjustment and repair of any circuit breaker mechanism without making dead the main busbars.

The first section of the switchboard controls the feeders to the studio-lighting circuits, which have been sub-divided in such a manner that a fault on one group of studios will not affect others. Six feeders have been used, each feeder being controlled by a 100-ampère, single-phase circuit breaker. The feeders are arranged as follows :—

(1) Studio No. 1 ; (2) Studios in sub-basement and third floor ; (3) Studios on sixth and seventh floors ; (4) Studio BA ; (5) Studio 3A ; (6) Studio 8A.

Change-over switches are provided on these feeders to enable the attendant to connect them to the main alternating current supply, through their respective oil switches, or to the secondary-lighting battery, in which case they feed through double-pole ironclad switch fuses. This arrangement covers the possibility of a failure on the circuit breakers or their auxiliary circuits.

The second section of the switchboard controls the general lighting of all places external to the studio tower and including all offices, and corridors. These are fed from three feeders, each feeder supplying four floors and being controlled by a 300-ampère, single-phase oil switch. Since these circuits feed only administrative offices, change-over switches to connect the circuits to the storage battery have not been provided. Three circuits controlled by a 100-ampère, 3-phase oil circuit-breaker are provided for flood-lighting the building.

The fourth section of the switchboard controls the power supplies to the running plant, and consists of six circuit breakers through which are fed the following services :

One of 150 ampères for the control room charging motor generators and experimental transmitter.

One of 300 ampères for extract ventilating plant motors situated on the roof of the building.

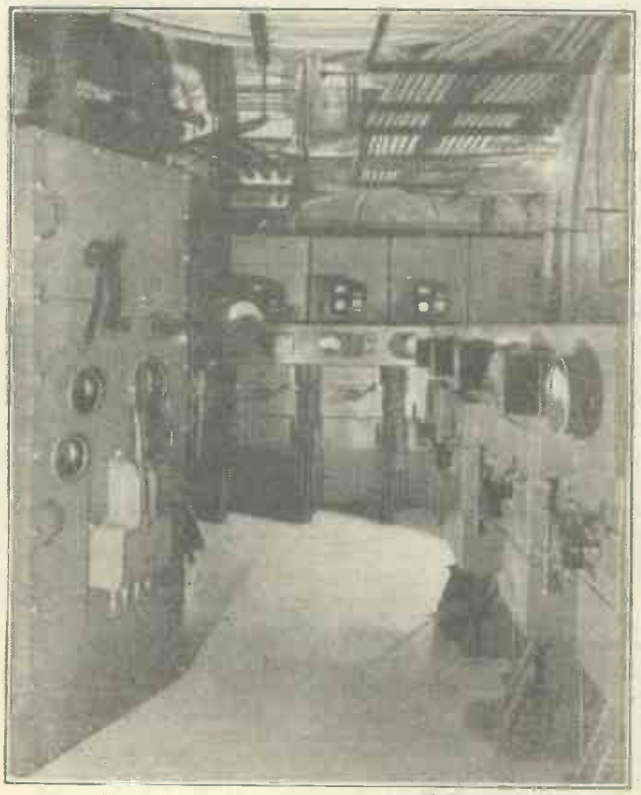
Two of 500 ampères for controlling the ring main which feeds all ventilating plant, motors, etc., situated in the sub-basement.

One of 500 ampères for feeding lift motors.

One of 500 ampères for feeding a 265 h.p. motor driving the refrigerator situated in the sub-basement.

The heating services are controlled by one 3-phase, 150-ampère circuit breaker with neutral link.

The final section of the switchgear is for the control of the secondary lighting and emergency storage-battery circuits. As mentioned previously, this equipment is situated in a separate fire-proof chamber which has no access to the main switch-room. This arrangement was adopted as a precaution against explosion or fire in the main switch-room and to comply with the rules of the London County Council governing places of entertainment to which the public are admitted. This switchboard is of the flat back type. On it are mounted the meters and switchgear for the control of the secondary battery, the charging motor generator and the feeders of the secondary lighting system.

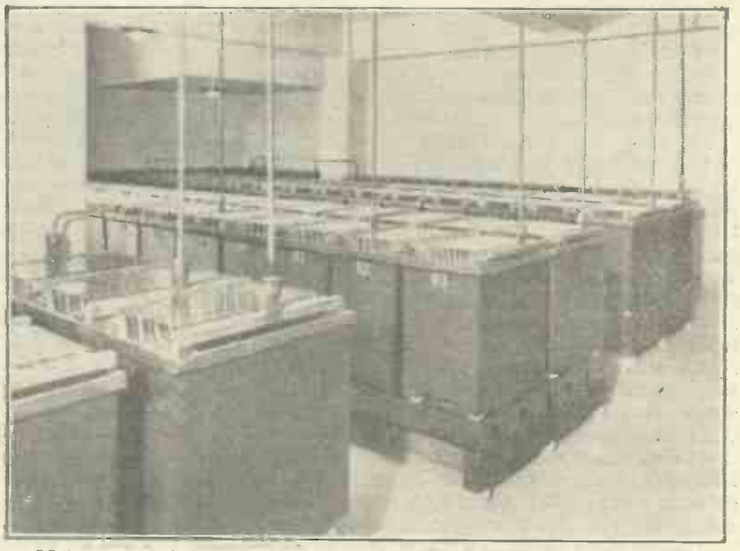


General view of main power supply switchgear

Emergency Lighting

The emergency storage battery, situated in the basement, consists of 123 cells, and has a capacity of 1,000 ampère-hours at a ten-hour rate of discharge. It is of the central station type contained in lead-lined, wood cases. Voltage control is obtained by a manually operated end-cell switch. It was necessary to provide for a fairly fine voltage regulation because the secondary lighting points in studios form part of the main lighting scheme. For this reason 20 end-cell taps are used, a larger number than is usually necessary for this purpose.

The adoption of end-cell regulation for a battery of this capacity is unusual, since this method of control necessitates the use of costly copper connexions, tends to reduce the life of the end-cells, and does not give such close regulation as a booster. However, against these disadvantages must be balanced the fact that in a building of this type it is advisable to reduce to a minimum the amount of rotating machinery and complicated switchgear. The end-cell method of regulating is less liable than a booster to mechanical trouble or to faulty switching operations.



Main storage battery—240 volts, 1,000 ampère-hours—for emergency lighting supply

To charge this battery, a motor-generator is installed, having an output of 150 ampères at 350 volts. Switching circuits are arranged so that the motor can derive its supply from the emergency alternator should it be necessary to charge the battery during the period when the main supply has failed.

The battery is floated on the busbars when the concert hall (to which the public will be admitted) is not in use, and the bulk of the secondary lighting load is taken by the motor generator. This ensures that the secondary battery is always in a fully-charged condition should the main power supply fail. In accordance with the regulations of the London County Council the motor generator is shut down when the concert hall is in use.

The final item of plant situated in the sub-basement is the stand-by generator set. This consists of a 5-cylinder, solid injection Diesel engine, developing 150 h.p. at 428 r.p.m. and direct-coupled to a 100 kW, 3-phase, 415-volt, 50-cycle alternator.

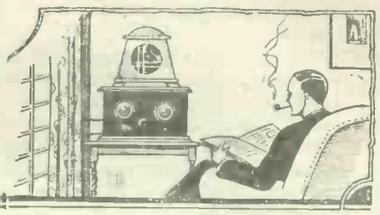
The usual compressed-air starting arrangements are provided, the air compressor being driven by a D.C. motor supplied from the storage battery. This arrangement enables the air receivers to be charged in the event of failure of the main A.C. supply. The generator set will be used only in case of emergency, and, in the normal course of events, will not carry any part of the main load.

(To be continued)

The Elements of Wireless

(PART 11)

By RALPH STRANGER and E. REDPATH



RESISTANCES (*Continued*)

As the reader has now been made familiar with the meanings of the terms *resistance* and *resistivity*, and the methods of ascertaining the total and effective values of resistances connected in series and in parallel, it remains to discuss certain practical points in connexion with the types of resistances employed in modern wireless receiving apparatus. As previously mentioned, these range from the filament rheostat of a few ohms to the gridleak resistance of 2 megohms, or more.

It is important, when selecting a resistance for any purpose, to remember that all resistances dissipate electrical energy in the form of heat, and that the amount of heat in any particular case depends upon the strength of current flowing through it. The heating effect, moreover, is not directly proportional to the current, but *increases as the square of the current*. In other words, if the current is doubled, the heating effect will be increased four times ($4=2^2$). Accordingly, the current to be carried is a factor which affects the selection (or construction) of a resistance in addition to the actual ohmic value.

An increase in temperature causes an increase in resistance. The *percentage* increase in resistance, per degree, is known as the *temperature coefficient* of the metal forming the conductor. In the case of copper, this is in the region of 0.25 per cent. but certain alloys have a much lower temperature coefficient, and are, therefore, adapted for use in resistances where, as a rule, any tendency towards unsteadiness in value is undesirable. Carbon is rather curious in that it has what is called a *negative resistance coefficient* —*i.e.*, its resistance decreases as its temperature increases. If carbon-filament lamps are to be used as resistances in any circuit (and they are frequently so used in battery-charging operations), it is to be noted that the resistance of the filament falls by from 30 to 40 per cent. when it is made incandescent.

Filament Resistances

Modern thermionic valves are made to accurate standards, and the filaments are designed so that they will pass the correct current when the full voltage of the two, four, or six-volt accumulator is applied. Accordingly, modern receiving sets do not have filament regulating resistances, unless, perhaps, one provided to control a particular valve, for instance the first high-frequency amplifying valve.

Resistances of this type are usually variable, smoothly and continuously, and are known as rheostats. They are formed of resistance wire, made of one of the special alloys available for the purpose, wound in an open spiral, and secured around the edge of a circular base so that a rotatable metal arm, actuated by a suitable ebonite knob, moves evenly over and makes contact with the turns of the spiral. By this means, more or less resistance is included *in series* with the valve filament and the current is controlled accordingly. The S.W.G. of the wire is chosen to suit the current to be carried, and the open spiral provides additional cooling.

Anode and Grid Resistances

Although, at the present stage of this series of articles, it is undesirable to deal with the actual functions of anode and grid resistances, their main characteristics—merely as resistances—should be mentioned. Anode resistances require to have high ohmic valves, ranging from 50,000 to 200,000 ohms, and as they are not called upon to carry more than a few milli-ampères of current, they may be constructed of very fine gauge resistance wire, which, however, must be well insulated because of the relatively high voltage applied to it. This type of anode resistance is specified as *wire wound*, in order to distinguish it from an alternative type which consists of a rod of composition having suitable resistance, and which is usually given some proprietary name.

Gridleak Resistances

The earliest form of this type of resistance was probably a thick line drawn with a blacklead pencil upon a strip of cartridge or blotting paper, which was then secured beneath two terminals, the " line " joining the terminals acting as a high resistance and having a value of the order of 2 megohms—more or less ! Later, paper or vegetable fibre impregnated with some kind of graphite mixture formed the resistance element which was enclosed in a glass or ebonite tube provided with pointed metal ends by means of which the complete gridleak could be held in spring clips.

The modern gridleak consists of a thin rod of glass upon which has been sprayed an extremely thin layer of resistance metal, the rod then being enclosed in an evacuated glass tube provided with the usual conical end pieces, with which the metallised rod makes contact. By excluding the air from the tube, deterioration (and consequent change in resistance value) is prevented. It is possible to manufacture such resistances with values ranging from 0.5 to 5 megohms and they have the particular advantage that the conductivity of the resistance element is continuous, thus avoiding the troubles experienced in the earlier types.

ELECTRO MAGNETISM

When an electric current is flowing through a conductor there is a magnetic field around *the whole length of the conductor*. The lines of force of this magnetic field distribute themselves in concentric circles, as shown in Fig. 33. The reason for this is that moving electrons disturb the ether and the magnetic field is the result of this disturbance.

The *extent of space* occupied by the lines of force of this magnetic field will depend on the strength of the current flowing through the conductor. The stronger the current the greater the spread of the field and the greater the number of lines of force. Should the current be changing rapidly in strength the magnetic field will also change both in intensity and extent, growing as the current increases, and *vice versa*. Both the current and the magnetic field will vary in step, what one does the other will do.

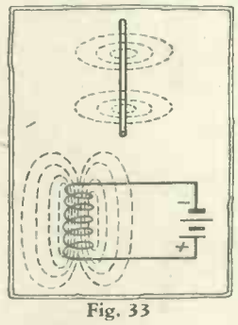


Fig. 33

Since the lines of force of a magnetic field are actually *moving* in space with the variation of the strength of the current, it is clear that should it be required to have a *moving magnetic field* there must be a changing current in the conductor producing it.

Thus, it is clear that moving electrons will produce a magnetic field. This is probably the reason why molecules are magnetic. The electrons flying with great speed in their atomical orbits disturb the ether and bring into existence a magnetic field around each orbit. In some molecules, it may be that the orbital magnetic fields add up to form a resultant magnetic field around the atom, and therefore around the molecule as a whole, and in some molecules the fields, owing to the difference in the direction of electronic flights, counteract each other so that there is no resultant field, or only a very weak one.

Just as moving electrons will produce a magnetic field so a *moving magnetic field* will cause electrons in a conductor to move. This means that a moving magnetic field is capable of *inducing* a movement of electrons in a conductor —*i.e.*, an electric current. It does not matter which moves—the magnetic field or the conductor—provided that one of them is moving, but the movement must be such that the lines of force of the magnetic field " cut " the conductor *at right angles* or the conductor " cuts " the lines of force of the magnetic field at right angles. This phenomenon is known as *electro magnetic induction*.

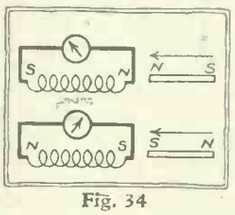


Fig. 34

Electro-magnetic induction can be caused by bringing near a coil of wire a permanent magnet, as shown in Fig. 34. As the magnet approaches the coil, the lines of force of its magnetic field " cut " at right angles the turns of the coil, inducing a current in it. The presence of the current will be indicated by a suitable instrument connected across the coil.

But, when a current is flowing through the coil it is bound to produce a magnetic field of its own around the coil. For this reason each end of the coil will acquire a magnetic pole, as if the coil were a magnet. On investigating the polarity of the coil ends it is found that when the current is flowing in the same direction in which the hands of a clock are moving (clockwise direction), looking at the coil end on, the nearer coil end presents a north pole. If the current is flowing in the opposite direction the same end of the coil will have a south polarity (The author is sorry to have to disagree with the text-books on this point, but the difference is due to the fact that current flows from the negative terminal of a battery and not from the positive one, as some text-books still maintain.)

The remarkable point about induction is the peculiar behaviour of electrons in the atoms of the coil when a magnetic field is approaching it. Returning to Fig. 34, when the magnet approaches the end of the coil with the south pole leading, electrons in that end of the coil will choose such a direction of flow as to present to the approaching south pole of the permanent magnet a south pole of their own which is bound to repel the " invading " pole. As soon as the magnet is being withdrawn, the electrons change their direction of flow and thus change the polarity of the end of the coil facing the magnet. It is now a north pole which attracts the receding south pole of the magnet, as if trying to retain it.

The flow of electrons is always such as to oppose the action of the influencing magnetic field. This should be well noted. If the permanent magnet is approaching the coil with

the north pole leading the whole process of electron movement is reversed.

It is not necessary to use a permanent magnet in order to produce a moving magnetic field. A coil of wire can be used for this purpose. In order to produce a moving magnetic field with the help of a conductor carrying a current, at least one of two conditions must be fulfilled, The current must vary either in strength or direction, from instant to instant. In practice both these conditions are fulfilled in the case of *alternating currents* which will be explained later.

In Fig. 35 is shown a coil connected to a battery through a reversing switch so that the

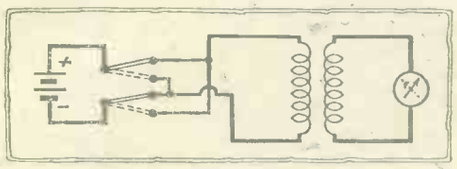


Fig. 35

direction of the current flowing through the coil can be changed. If this reversal is done very rapidly it is clear that the current will change its direction often, and therefore the magnetic field due to this current will also change, and as on reversal the current does not come up at once to its full strength but grows gradually, though rapidly, and, similarly, it does not collapse all at once, the magnetic field will follow the variations of the current and will spread and collapse in space as the direction of the current is being changed.

In this manner a moving field will be obtained, the lines of force of which will cut the turns of the second coil at right angles and induce in them currents which will change with the changes in the direction and intensity of the magnetic field. Thus, one coil is inducing current in another coil, a phenomenon which is largely used in wireless—*e.g.*, in the case of primary and secondary aerial coils, and the primary and secondary windings of a transformer.

A given magnetic field will not induce identical currents in every conductor. The degree of induction varies with each conductor, so that in speaking of the conductor itself, it is said that each conductor has its own *inductance*, *i.e.*, the ability of having a current induced in it.

The inductance of a conductor depends on its length and the manner in which it is arranged. Thus, a coil has a greater inductance than an equal length of straight wire. Inductance is measured in units called *Henries*. A henry is too large a unit for practical wireless work, and the usual unit is a millionth of a henry or a microhenry.

CONDENSERS (*Continued*)

Condensers used in wireless receiving sets may be either "fixed" or "variable." Fixed condensers, with capacities ranging from 0.0001 mfd. to 4.0 mfds., consist of an "assembly" of plates and dielectrics, alternating, on the lines previously explained, the dielectrics consisting of waxed paper or mica (according to whether the condenser is to withstand low or high voltages) interleaved with tin-foil or copper-foil "plates" the odd numbers of which are connected together to form one "set of plates," the even numbers being similarly connected to form the opposite set. The complete assembly is then placed in a suitable container—generally a moulding of some insulating compound—connexions are made to two external terminals, and the whole is sealed with wax so as to render it impervious to moisture.

The capacity of a condenser may be variable in steps—which is equivalent to arranging a group or "bank" of separate fixed condensers, of appropriate values, and bringing them into use one after the other by means of a suitable switch—or it may be variable continuously from a minimum (which will always be greater than zero) to a maximum. In quoting the "size" of a variable condenser it is this maximum capacity which is used; thus a condenser with a maximum capacity of 0.0005 mfd. is termed a 0.0005 mfd. condenser.

Nowadays the term variable condenser is taken to mean this latter type and the desired effect is obtained by arranging one set of plates upon a rotatable spindle so that they may interleave, to a greater or lesser degree, the opposite set of plates which are fixed. The dielectric in this type of condenser is usually air. Although this necessitates a greater over-all bulk for a given maximum capacity than would be the case if, say, mica were used, experience has shown air condensers to be the most satisfactory for wireless reception purposes.

There are also other mechanical means of obtaining a continuously variable condenser. It will perhaps be sufficient at present to mention only one, namely, the "pre-set" or "compression" type of condenser in which the "plates"—of springy brass or copper foil, interleaved with thin mica dielectrics—normally spring apart to give a minimum capacity (the dielectric then being mainly air) and are compressed by the action of an adjusting screw until the pre-determined maximum capacity is obtained, the interleaved pieces of mica preventing actual contact between opposite plates.

The functions of fixed condensers in a wireless receiving set vary considerably, but depend chiefly upon the fact that while a condenser acts as an insulator to a steady *direct* current, in effect it permits the passage of an *alternating* or *oscillatory* current. Variable condensers also act in a similar manner, but their principal application is in connexion with an operation familiar to practically all readers as tuning.

It will be appreciated, therefore, that these matters cannot be dealt with satisfactorily until the laws of alternating currents, tuning and tuned circuits have been explained and illustrated by means of examples. The articles dealing with these subjects will be appearing in the course of the next week or two, after which it will be possible to discuss practical points of condenser design and construction, and to explain, for example, the differences between variable condensers of the *straight-line capacity*, *straight-line frequency*, and *straight-line wavelength* types.

"Elements of Wireless"

Postage on Test-Papers

A number of completed Test-Papers have been received on which excess postage has had to be paid. Will competitors kindly make certain, when posting, that sufficient stamps are affixed.

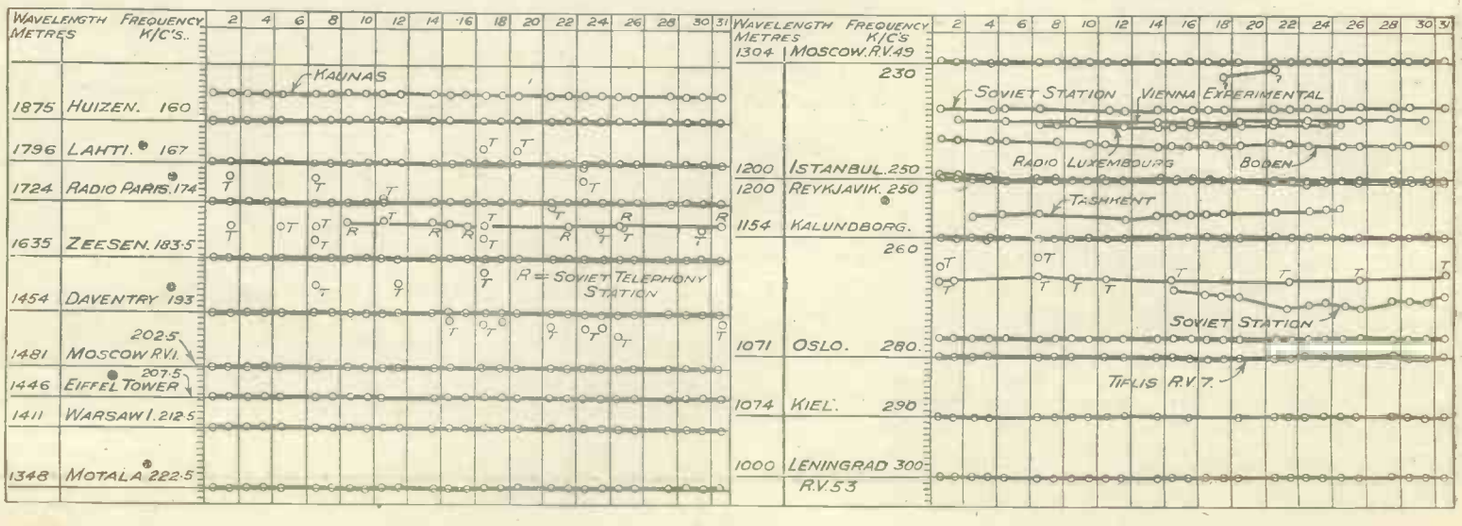
Standard Frequency Transmissions

THE regular standard-frequency transmissions on the first and third Tuesday afternoons of each month from the transmitting station G5HW at the National Physical Laboratory have now been discontinued. They will be replaced by specially modulated transmissions in accordance with a programme which will be announced at a later date. The three-monthly evening transmission on 1,785 kc/s will be continued as at present. Particulars of this transmission can be obtained from the Department of Scientific and Industrial Research, 16, Old Queen Street, London, S.W.1.

Frequencies of Long-Wave European Broadcasting Stations

March Measurements by the Brussels Laboratory of the Technical Committee of the U.I.R.

The Letter T indicates Telegraphy transmission. Stations marked ● are provided with U.I.R. wave-meter



One Man To Another

Mr. Youngerman: So you are retiring, Sir? Well, I'll have to wait another 30 years before I get *my* pension.

Mr. Elderman: You're lucky to have one to look forward to. They don't give pensions in my line of business.

Mr. Youngerman: I'm sorry. Then it's a rather serious financial loss? I suppose it will be difficult to get another position at your age?

Mr. Elderman: Happily it isn't necessary. I took out an endowment policy when I was 30. Next week I shall be 65, and I shall get an income of £400 a year for the rest of my life.

Mr. Youngerman: By Jove! that sounds a useful proposition. I reckon on a pension, but one never knows. Besides, it would be a lot less than my salary.

Mr. Elderman: Yes, and during the whole of the time, if anything had happened to me, the wife would have had the sum insured and something substantial added each year by way of bonus.

Mr. Youngerman: Perhaps you wouldn't mind telling me the name of your insurance company. I'd like to know what it would cost me to fix up a similar proposition.

Mr. Elderman: My Company's the Prudential. It happens that I can tell you the figures, if you're interested—They're even better than they were in my day—My boy's the same age as you are, and I got their representative to work it out for him. Allowing for income-tax rebate it will cost him £61-19-7d. a year—not much more than £1 a week. And at age 65 he will get a guaranteed £414 a year. And he's insured the whole time for £2,000 with £60 guaranteed Bonus added each year.

Mr. Youngerman: Suppose I wanted to arrange to draw the money at 60? Could that be done, do you think?

Mr. Elderman: Oh, yes; they advertise: Any age, Any term, Any amount.

If you would like a guaranteed income of £400 a year at age 65 or earlier, fill in and forward this coupon:—

To **The Prudential Assurance Co. Ltd.** Holborn Bars, London, E.C.1.

Please send me particulars of a Guaranteed Bonus Endowment Assurance Policy which will enable me to secure an assured income of £.....at age.....

My age next birthday is.....

Name.....
Mr., Mrs. or Miss.

Address.....

.....

W.R. 22/4/32. P.P. 202.

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PRICES PER 2-VOLT CELL • DTG - 20 amp. hours - 4/6 • DFG - 45 amp. hours - 8/6 DMG - 70 amp. hours 11/- • DHG - 100 amp. hours - 14/6. *These prices do not apply in the Irish Free State.*

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Ultra Short-Wave Communication

By R. L. SMITH-ROSE, D.Sc., Ph.D., A.M.I.E.E.

5.—An Experimental Direction-Finder

AMONG the advantages which accompany the use of ultra-short wavelengths is the fact that for experimental work the apparatus required is relatively simple. As has been pointed out previously, wavelengths between 5 and 10 metres require inductance coils consisting of single-turn loops a few inches in diameter, and condensers having a maximum capacity of only 50 micro-microfarads or less. In the two previous articles a description was given of the general features of a simple two-valve loop receiver, and its use in the exploration of the field intensity radiated from a low-power transmitter at distances up to nearly twenty miles.

Now it is well known that the signal e.m.f. induced in a closed loop aerial is proportional to the cosine of the angle between the plane of the loop and the direction of the waves arriving from a transmitting station. Thus, as the loop is rotated, the intensity of the received signal varies from a maximum when the plane of the loop lies along the line of the arriving waves to a minimum or zero when it is turned at right angles thereto. If, therefore, we place our loop receiver upon a turntable and rotate it, a means is provided for taking bearings upon a distant transmitter by ascertaining the position of the loop for minimum signal strength. To obtain a sharp signal minimum and an accurate bearing in this manner, it is essential that no e.m.f. shall be picked up from the arriving waves by any part of the receiver except the loop itself.

Arrangement of D.F. Set

The photograph, Fig. 1, shows a view of the two-valve set already described, set up on a turntable mounted on a tripod for the taking of bearings. Overlooking for the moment the screen of vertical wires surrounding the loop, the purpose of which will be described presently, it is seen that the whole of the receiver, other than the loop, is contained in a screened box and so the set is free from the direct pick-up of signals on the valve circuits. Further, it will be seen from the diagram of connexions reproduced in Fig. 2, that the receiving loop is tuned by two condensers in series, the lead between them being connected to the valve filaments and the screening box; also it was found that the capacities between the ends of the loop and the box were of the same order.

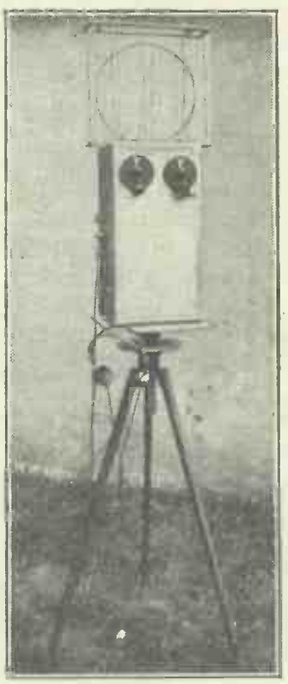

Fig. 1—Ultra short-wave receiver, with screened coil, mounted on tripod-turntable

It might, therefore, be expected that the loop is, approximately, electrically symmetrical about its midpoint, and would give a satisfactory figure-of-eight or cosine diagram for direction-finding purposes. Simple aural tests, however, showed that this was not the case, and that the quality of the signal minima given by the set was much improved by the addition of an electric screen around the loop, in the manner commonly adopted in direction-finders on longer wavelengths. Accordingly, some measurements of the reception characteristics of the set were carried out when the loop was orientated in different directions relative to that of the transmitter.

Experiments with Loop Screens

The measurements were made in the manner adopted in the field intensity measurements described in the previous article. The D.F. set was installed at a distance of 50 metres from the transmitter on the site which had proved most satisfactory for these measurements. Readings of the audio-frequency output were made for a series of orientations of the set while conditions at the transmitter remained constant on a wavelength of 8 metres. Care was taken that the observer should remain in a fixed position below the set, and a repetition of the measurements over a portion of the 360 degrees showed that the measurements could be made to a reasonable accuracy.

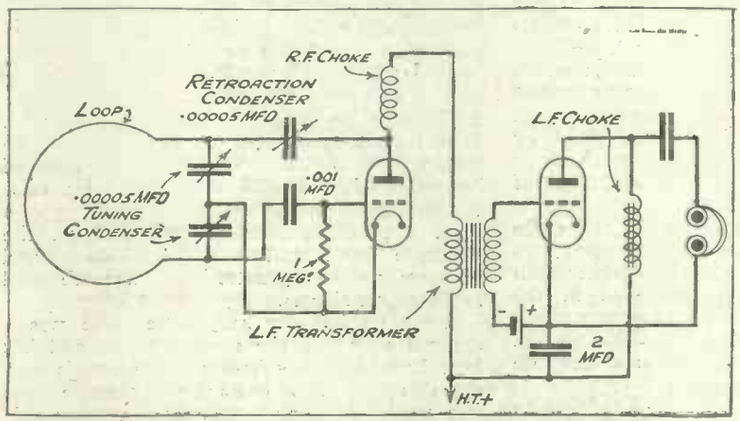

Fig. 2—Circuit of two-valve receiver used for D. F. experiments. Wavelength 4 to 10 metres

A polar reception diagram obtained in this manner for the loop receiver with no screen around the loop is shown in Fig. 3A. The two lobes of this diagram are dissimilar and the positions of signal minima are not well defined. A rectangular framework fifteen inches by four inches, comprising fifty wires fourteen inches long, was then placed around the coil, as shown in the photograph, Fig. 1. When the wires were bonded together but insulated from the metal box, only a small improvement in the diagram was obtained. The minima became a little sharper, but the two lobes were still asymmetrical, the strength of signal received on one side of the coil being about thirty per cent. less than on the other side.

When the screen was connected to the metal screening box containing the receiver, the signal minima became practically zero, as shown in Fig. 3B, although the polar diagram was still asymmetrical. By trial of various arrangements of spacing and bonding of the screen wires, it was found that this asymmetry could be compensated for by earthing to the box the wires on one side of the loop while the remainder were left insulated. The polar diagram of the receiver with this arrangement is shown in Fig. 3C, from which it will be seen that the two signal zeros are sharp and well-defined at positions 180 degrees apart, and that the diagram is approximately symmetrical about the line through the minima.

These experiments indicate that the fault with the unscreened loop is that the two sides are slightly out of balance in respect of their capacities to the box, to which the midpoint of the loop is virtually connected, and that this lack of symmetry can be compensated for by a suitable arrangement of the screen wires. It is possible that if the effect of the screen were applied in the reverse sense the asymmetry of the polar diagram could be accentuated to produce a unidirectional short-wave receiver, but the experiments were not continued in this direction.

Performance of D.F. Set

With the receiver set up on a turntable in the manner shown in Fig. 1, and the screen around the loop adjusted to give a symmetrical polar diagram as described above, the whole installation provides a simple and accurate means of taking bearings upon the signals received from a distant transmitter. After the set has been tuned, it is simply rotated until the signals pass through a minimum or silent position over an arc of 1 or 2 degrees. A line at right angles to the position of the loop at the centre of this arc then gives the bearing of the distant transmitter. A brief description of some tests carried out to ascertain the accuracy of the D.F. bearing so obtained under different conditions will, no doubt, be of interest.

When both transmitter and receiver were erected on an open site, the bearing was very accurate for the distance of 50 metres employed in the polar diagram measurements. When the experiments were repeated on a less satisfactory site, it was found that the observed bearings were subject to errors ranging up to 15 degrees, which were attributable chiefly to the effect of secondary waves reflected from objects in the neighbourhood of the transmitter.

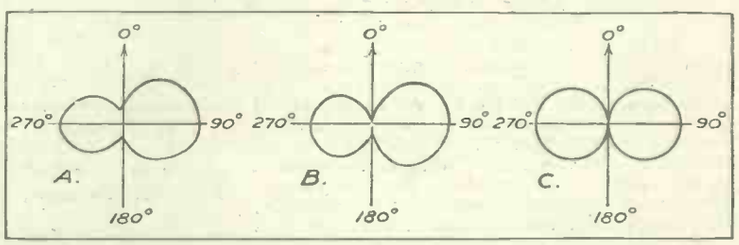

Fig. 3—Polar reception diagrams of D.F. set on a wavelength of 8 metres

A series of experiments was then made, using the D.F. set to obtain bearings on signals from the main transmitter at distances up to twenty miles, and the results of some of these experiments are given in the following table:—

FROM TRANSMITTER

Position.	Distance. (miles.)	True bearing. (degrees.)	Error in observed D.F. bearing. (degrees.)
1	0.12	0	—17
2	0.12	20	— 1.
3	0.12	300	+15.
4	0.6	75	— 6.
5	1.0	16	— 7.
6	2.0	342	— 5.
7	4.0	297	— 1.
8	7.0	299	0.
9	7.0	303	— 2.
10	8.0	393	— 2.

In all the cases recorded the D.F. set was on a fairly satisfactory site, well away from such obstacles as trees and telegraph wires, which were found to have disturbing effects similar to those experienced on longer wavelengths. Under such favourable conditions it is seen from the table that as the distance of the D.F. set from the transmitter is increased, the accuracy of the observed bearings improves materially, and for distances of from four to eight miles the errors are probably within the limits of accuracy of the apparatus employed. It was also observed that the signal minima were more clearly defined at a distance, despite the unavoidable reduction in signal strength.

These facts are consistent with the idea that at the transmitter the trees and other objects surrounding it are acting as reflectors, and thus provide an effective source of radiation which is distributed over an appreciable area around the transmitting aerial itself. As the range of observation is increased, the angle subtended by this area diminishes until it becomes effectively a point source for the D.F. set at a distance of a few miles.

At distances of more than eight miles the signals were inaudible until the receiver was taken to the top of a hill, 500 feet higher than the transmitter, when, as described in the previous article, the signal intensity at a range of twenty miles was comparable with that at four miles along the flat ground, and accurate D.F. bearings were again possible.

These simple experiments serve to illustrate both the application and limitations of short-wave transmission and direction-finding. Unless the site around the transmitter is clear over a considerable area, reliably accurate bearing observations will not be possible except at distances for which the angle subtended at the receiver by the obstacles surrounding the transmitter is very small. Apart from this, direction-finding on ultra-short wavelengths would appear to offer possibilities under receiving conditions which have been found to give good results on longer wavelengths, so long as there is a direct-ray path from transmitter to receiver.

(To be continued)

Correspondence

Effect of the Moon

To the Editor of WORLD-RADIO

SIR,—It has been remarked from several different sources that the moon has a decided effect on long-distance reception, and so, for an experiment, I procured twelve copies of *World-Radio*, starting from the issue of Dec. 11. I then turned to the "Which Station Was That?" column and counted all the medium-wave stations in North and South America which were given as answers in this section, and then I fixed the numbers in the form of a graph. Of course care has to be taken that the number refers to the proper week.

When the graph was finished I was able to find that there was a most decided peak during the week when the moon was at its fullest. The biggest peak was found to coincide with the period from Dec. 20–Dec. 27. Probably many readers remember a letter in which the writer commented on the wonderful reception obtained on the morning of Christmas Day. I am sending this letter in the hope that it will interest other readers interested in DX reception.

Wishing every success to *World-Radio*, especially in its new form.

Yours faithfully,

Dublin. R. M.

Below 100 Metres

By "MICROM"

IT is rather interesting to speculate upon any possible connexion between the very good reception conditions of Monday night, April 11, when both W2XAD and W8XK (25.25 m.) were good loud-speaker signals, and the serious eruptions in the Andes.

At 6.55 p.m. W2XAD was an excellent signal, marred only by the slow fading to occasional inaudibility. W8XK (25.25 m.) was also an excellent signal at 7.15 p.m., with only a trace of quick fading, which in no way marred the programme. As W8XK's carrier was considerably stronger than that of W2XAD, much less noise was noticed on this transmission.

In view of the differing opinions regarding the 25-metre Moscow transmitter, advantage was taken of the excellent conditions prevailing on Monday evening to measure the frequency difference between W8XK, 11,880 kc/s, and the 25-metre mystery station. An accurate determination of the frequency difference between these two stations was made by leaving the oscillator setting on the short-wave superhet. receiver constant at W8XK, and then re-tuning the calibrated intermediate-frequency stage until Moscow was accurately tuned in. The frequency separation was found to be 135 kc/s, which, assuming the frequency of W8XK to be correct, gives a frequency of 11,880+135=12,015 kc/s for Moscow, which is equivalent to 24.97 metres. It is, therefore, certainly not a station on 25.16 metres, but appears to be the half-wave of Moscow T.U., whose wavelength, by this determination, will be 49.94 metres.

At 8 p.m. on Monday, W2XAD on the 19-metre band and W8XK, Pontoise and Moscow, on the 25-metre band, were all good loud-speaker signals.

Rome on its new 42.7-metre wave was a colossal signal all the early evening, and has been heard regularly from 7 p.m. onwards each day this week in all cases the 42.7-metre wave was used. At first it was thought that this station was 1AC, Coltano, relaying Rome, but it now appears to be the Rome S.W. transmitter, Prato Smeraldo working on a new wave. Judging by the reception of 25-metre waves in England this winter, which, of course, has been poor, one surmises that the Italian authorities have decided to put Rome on a wavelength which looks like being much more successful than the 25.4 metre wave.

Nairobi, on 49.5 metres, has been heard several times recently, notably on Thursday, April 14. Interference was very bad, however, but a clear announcement, "This is 7LO Nairobi," was heard at 6.56 p.m., followed by a musical programme. Although the carrier-wave of 7LO was fairly strong, the modulation depth was inclined to be poor, especially on speech, but to cover 5,000 miles on 500 watts is quite a good performance, and but for the static, Nairobi on several occasions would have a good loud-speaker signal.

EAQ, Madrid, on 30.4 metres, has again been heard testing with New York, and is a very steady and powerful signal in the North of England. Moscow, REN, has been heard on several occasions on 45.38 metres, but, as mentioned by Vernier, the quality is much inferior to that from Moscow T.U.

W3XAL on 49.18 metres was heard on one occasion, but only 70 per-cent. intelligible, and WOO on 62.5 metres has again been heard after midnight at good loud-speaker strength.

Both PLE and PLV, Bandoeng, were heard on their usual Tuesday afternoon transmission, at about 3.30 p.m. At this time PLE was the weaker station, PLV on 31.86 metres being a good loud-speaker signal. The modulation depth appears to be considerably higher on the 15.93 metre PLE, however.

SHORT-WAVE STATIONS

The times quoted are reduced to B.S.T.

M.	Kc/s	
70.2	4273	—Khabarovsk (U.S.S.R.), 20 kW. 10—1 p.m.
62.5	4800	—Long Island, W2XV. FRI., 12—2.30 a.m.
58	5172	—Prague. TUES. and FRI., 8.30—10.30 p.m.
54.52	5502	—Brooklyn (N.Y.) W2XBH. Relays WCGU.
51.22	5857	—Chapultepec (Mexico) XDA, 20 kW. Daily 4—5 p.m.
50.26	5969	—Station du Vatican (Italy) HVJ. 10 kW. D'ly 9.0—9.15 p.m. SUN. 12—12.30 p.m. also.
50	6000	—Barcelona Radio Club EAJ25. SAT. 9—10 p.m.
50	6000	—Bucharest (Romania), 0.3 kW.
50	6000	—Moscow (Relays Moscow T.U.). 9 p.m.
49.96	6005	—Drummondville, Quebec VE9DR. 4 kW.
49.96	6005	—Tegucigalpa (Honduras), HRB, 2.5 kW. Daily (except SUN.), 1 a.m.—6 a.m.
49.83	6020	—Chicago (Ill.) W9XF, 5 kW. Relays WENR. SUN., 5–7 a.m., 1–5.30 p.m., 8.30—11 p.m., and 1—6 a.m. (MON.). Weekdays, 3.15—4.45 p.m., 8.30 p.m.—12 m'nt and (ex. SAT.) 1.30—6 a.m.
49.59	6050	—Halifax, N.S. Relays CHNS.
49.5	6060	—Cincinnati, W8XAL, 10 kW. Relays WLW.
49.5	6060	—Nairobi (Kenya), 7LO.
49.5	6060	—Philadelphia (Pa.) W3XAU, 0.5 kW. Relays WCAU. Daily 2—9 p.m. THURS. and FRI., 2 p.m.—6 a.m.
49.43	6069	—Vancouver (B.C.) VE9CS.
49.4	6072	—Johannesburg (S.Africa). D'ly 4.30–9.30 p.m.
49.4	6072	—UOR2, Vienna Experimental.
49.34	6080	—Chicago (Ill.) W9XAA, 0.5 kW. Relays WCFL. Daily 2—5 a.m.
49.22	6095	—Bowmanville (Canada) VE9GW, 0.028 kW. Weekdays, 11.45 a.m.—3 p.m. and 8 p.m.—3 a.m. SUNDAYS, 5.30 p.m.—4.15 a.m.
49.18	6100	—Bound Brook (N.J.) W3XAL, 20 kW. Daily 10 p.m.—6 a.m.
49.05	6116	—Saigon (French Indo-China) F3ICD, 12 kW. Daily 1 p.m.—4.45 p.m.
49.02	6120	—Richmond Hill (N.Y.) W2XE, 0.5 kW. Relays WABC, D'ly 1 p.m.—5a.m. next day.
48.86	6140	—Pittsburgh East (W8XK). Relays KDKA. WED., and SAT., 10 p.m.—5 a.m.
48.8	6147	—Winnipeg (Canada) VE9CL, 2 kW. Daily (except SUN.) from 12.30—2.30 a.m.
48.65	6167	—Mexico City X1F.
48.35	6205	—Bogotá (Colombia) HKC. Daily, 4 p.m.
48.05	6243	—Barranquilla (Colombia), HKD.
48	6250	—Casablanca (N. Africa) CN8MC. Relays Rabat, MON., 9—10 p.m. TUES., 1 p.m.—2 p.m. and 9—10 p.m.
46.69	6425	—Bound Brook (N.J.) W3XL. FRI. 10—11.45 p.m. and 4—6 a.m. SAT. 6.30—11.45 p.m. and 4—6 a.m.
45.38	6611	—Moscow, REN (Russia).
45	6667	—Constantine (Algeria) 8KR, 0.2 kW. MON. and FRI., 12 m'nt.
43	6976	—Madrid (EAR 110), TUES. & SAT., 11.30 p.m.
42.9	6991	—Lisbon, CT1AA, 2 kW. FRI., 11 p.m.
42.9	6991	—Rome (Italy) 2RO, 9 kW.
41.7	7195	—Singapore VS1AB, SUN. & WED. 3.30—5 p.m.
41.6	7211	—Tenerife Radio Club EAR58, 0.05 kW.
41	7313	—Bangkok HSP2, 2.5 kW. (Testing). MON. only 2—5 p.m.
39.7	7556	—Bogotá (Colombia) HKF.
39.4	7612	—Nuevo Laredo (Mex.) X26A. THUR., 5—6 p.m.
34.68	8650	—Long Island W2XV. FRI. 11 p.m.—1.30 a.m.
33	9090	—Radio LL (France), 0.5 kW. Daily 12.30—1 p.m. and 6—6.30 p.m. SUN., MON., WED. and FRI., 8—10 p.m. SAT., 7—8.30 p.m. SUN., 10 a.m.—12.30 p.m. and 2.30—4 p.m.
32.5	9230	—Paris (FLJ). Time Sig. 8.56 a.m. and p.m.
32.26	9300	—Rabat (Radio Maroc), 6 kW. SUN. 8—10 p.m.
31.86	9416	—Bandoeng (PLE) 80 kW. TUES. 2.40—4.40 p.m.
31.75	9450	—Rio de Janeiro (Brazil). 10.30 p.m.—12.30 a.m.
31.55	9510	—Melbourne (Australia) VK3ME, 5 kW. WED. and SAT., 11 a.m.—12.30 p.m.
31.51	9520	—Skamlebæk (Denmark) OXY, 0.5 kW. Relays Copenhagen. Daily from 7 p.m.
31.48	9530	—Schenectady, N.Y. (W2XAF), 40 kW. Relays WGY. Daily 11 p.m.—5 a.m.
31.38	9560	—Zeesen (Germany), 8 kW. Relays various stations, generally 2 p.m.—1.30 a.m.
31.35	9570	—Poznań (Poland), SR1, 1 kW. TUES. 6.45—9.45 p.m. THURS., 6.30 p.m.—1 a.m.
31.35	9570	—Springfield (Mass.) W1XAZ.
31.3	9582	—Philadelphia (Pa.) W3XAU, 0.5 kW. Daily (except THURS. and FRI.). 9 p.m.—6 a.m.
31.28	9590	—Melbourne (Australia) VK3ME, 20 kW. WED. and SAT., 11 a.m.—12.30 p.m.
31.28	9590	—Sydney (Australia) VK2ME, 20 kW. SUN., 7—9 a.m. and 3.30—5.30 p.m.
31.28	9590	—Eindhoven (Holland) PCJ, 25 kW. (Closed).
30.75	9756	—Agen. TUES. and FRI., 9—10.15 p.m.
30	10,000	—Belgrade. MON. only 8—9 p.m.
29.3	10,238	—Heredia (Costa Rica) NRH, 7.5 watts. Daily 11 p.m.—12 m'nt. and 3—4 a.m.
28.98	10,350	—Buenos Aires LSX, 20 kW. 9.30 p.m.—1.30.
25.65	11,705	—Radio-Colonial (Paris). D'ly 9 p.m.–12m'nt.
25.53	11,750	—Chelmsford (G5SW), 12 kW. 12.30—1.30 p.m. & 6.45 p.m.–12 m'nt. News Bulletins at 12.30 p.m. (SAT. 12.45) 6.15 p.m., & 12 m'dn't.
25.5	11,763	—Chapultepec XDA, 20 kW. Daily, 9–10 p.m.
25.46	11,777	—Saigon (French Indo-China) F3ICD, 12 kW.
25.4	11,810	—Bowmanville (Canada) VE9GW. (Exptl.).
25.4	11,810	—Rome (Italy) 2RO, 9 kW.
25.34	11,840	—Chicago (Ill.) W9XAA. Relays WCFL.
25.25	11,880	—Pittsburgh East (W8XK). 5 p.m.—3 a.m.
25.2	11,905	—Radio-Colonial (Paris), Daily 4.30—7.30 p.m.
24	12,500	—Funchal (Madeira) CT3AQ, 0.05 kW. TUES. and THURS. 10.30–12.30 a.m. SUN. 4.30–6p.m.
23.8	12,605	—Rabat (Radio Maroc), 6 kW. SUN. 12.30 p.m.
21.5	13,950	—Bucharest, 0.3 kW. WED. and SAT., 7.10 p.m.
20.5	14,630	—Chapultepec XDA, 20 kW. D'ly 8.30—9 p.m.
19.84	15,123	—Station du Vatican (Italy) HVJ. 10 kW. Daily 12 noon—12.20 p.m.
19.72	15,210	—Pittsburgh East (W8XK). Relays KDKA WED. and SAT., 12 noon—4 p.m.
19.68	15,234	—Radio-Colonial (Paris). Daily 1—4 p.m.
19.56	15,340	—Schenectady (W2XAD), 20 kW. Weekdays, 9 p.m.—12 m'nt. SUN., 7 p.m.—12 m'nt.
16.57	18,105	—Chicago (Ill.) W9XAA. Relays WCFL.
15.93	18,830	—Bandoeng (PLE) 80 kW. TUES. 2.40–4.40 p.m.

(For Long and Medium Wave Stations see page 802.)

FOREIGN LANGUAGES SECTION

FRENCH

(A) *" L'Imparfait " et le " Passé simple " ou " Passé historique."*

A chaque instant on me prie d'expliquer la différence entre l'*Imparfait* et le *Passé défini* ou *Passé historique*.

J'ai expliqué la chose plusieurs fois déjà, au cours de mes leçons ; mais comme la question présente d'assez grosses difficultés je vais m'exécuter une fois de plus.

Pour commencer il faut bien se rendre compte que l'*Imparfait* n'est autre chose que le présent transporté dans le passé. Prenons le passé comme point de départ, et *l'imparfait* est réellement un présent : *à telle heure, tel jour, telle semaine, à telle date, à ce moment, alors*, etc. . . . *je faisais ceci, je faisais cela.*

Le point de départ n'est pas toujours indiqué d'une façon précise, souvent même il est sous-entendu ; mais si nous nous donnons la peine d'examiner les différents emplois de l'imparfait, nous trouverons que nous avons toujours affaire à deux états ou à deux faits *simultanés :* celui qui est exprimé et celui qui a servi de point de départ. L'*imparfait* est donc le temps qui exprime une chose passée maintenant ; mais *qui n'était pas achevée* quand une autre a eu lieu : Ex. *Je dormais quand vous êtes sorti.*

Le passé historique (passé simple ou passé défini) exprime qu'une chose a eu lieu dans un temps complètement écoulé et conçu comme déterminé, sans considérer le moindrement les conséquences que cette chose peut avoir dans le présent : Ex., *à telle heure, tel jour, telle semaine, à telle date, à ce moment, alors*, etc. . . . *je fis ceci, je fis cela.* Le *passé historique* est donc le temps de la narration, du récit ; c'est le temps dont on se sert en parlant de faits, qui ont lieu *successivement* sans indication de durée, ou bien en parlant de faits isolés considérés comme des points dans le passé.

Ceci posé, les choses suivantes s'expliquent facilement :—

1. L'*imparfait* est le passé descriptif.
   Le *passé historique* est le passé narratif.
   Ex. *Les oiseaux chantaient, la forêt murmurait.*
   (*Alors, tout à coup*, etc.) *les oiseaux chantèrent, la forêt murmura.*
2. L'*imparfait* exprime l'*état* de quelquechose à un moment donné.
   Le *passé historique* exprime le passage d'un état à un autre.
   Ex. *Il souriait et se frottait les mains.*
   (*A ce moment, à partir de ce moment, etc.*) *il sourit et se frotta les mains.*
   A cette heure-là il était à table.
   A cette heure-là il se mit à table.
   Il chantait = he was singing. *Il chanta* = he sang, he began to sing. *Il aimait* = he was in love. *Il aima* = he fell in love.
3. Enfin l'*imparfait* exprime qu'une action revenait régulièrement au moment dont on parle.
   Le *passé historique* exprime qu'une action est revenue régulièrement pendant un certain temps, mais qu'elle a cessé ensuite.
   Ex. *Il dînait au restaurant depuis quelques jours* (et il continuait encore à dîner au restaurant).
   Il dîna au restaurant pendant quelques jours (puis il cessa de dîner au restaurant).
   Elle s'amusait depuis le matin.
   Elle s'amusa jusqu' au matin.

Demandez-vous pour quelles raisons nous avons tantôt l'*imparfait* et tantôt le *passé historique* dans les exemples suivants :—

(a) *Le vent soufflait. Vous dormiez à poings fermés. J'ai su que vous étiez à la campagne les jours derniers. Vous lisiez quand je suis entré. Elle dessinait pendant que j'écrivais.*

(b) *Il tua son ennemi. Elle ne dormit point de la nuit. Elle prit congé quelques instants après l'arrivée du patron. Quand il eut fermé la fenêtre il éteignit la lampe.*

(B) Quelqu'un m'a écrit tout récemment pour me demander ce qu'il faut penser de l'expression *ne . . . pas que :* Ex. *Il n'y a pas que vous ; il ne vend pas que des parapluies ; nous n'avons pas que cela à faire*, etc. . . .

Ce que j'en pense, mon bon Monsieur ? Je trouve que c'est une façon de parler très incorrecte, et dont on ne devrait jamais se servir, au moins dans la langue écrite. Je sais fort bien que cette syntaxe est très répandue, tellement répandue que des auteurs célèbres se sont permis de l'employer ; mais ce n'est pas une raison pour que vous vous en serviez. *Ne . . . que* signifie *seulement ;* ce qui revient à dire que *ne . . . que* a pris un sens positif ; pour rendre le sens négatif on y a ajouté *pas* tout court, puisqu'on ne pouvait ajouter un second *ne* à celui qui s'y trouvait déjà. De cette façon le sens de *seulement* n'est plus représenté dans l'expression *ne . . . pas que* que par *que*, ce qui est insuffisant. D'ailleurs la négation est contenue dans le *ne*, *pas* n'y ajoute rien ; il s'ensuit que *ne . . . pas que* signifie *ne . . . que*, ni plus ni moins. C'est bien ainsi qu'on l'entendait au 17ème Siècle, puisque nous trouvons dans Corneille :—

" Ils ont vu Rome libre autant qu'ils ont vécu,
Et ne l'auront point vue obéir qu' à son prince."
(Horace, Acte III, Scène VI).

ce qui signifie évidemment qu'ils ont vu Rome soumise à son prince, et non à d'autres maîtres ; tout comme si Corneille avait écrit : " *Et ne l'auront vue obéir qu'à son prince.*" *Pour* en faire une expression négative il faudrait pouvoir dire *ne . . . pas'ne que*. Or cela n'est pas possible. Evitons donc cette syntaxe et disons tout bonnement : *Vous n'êtes pas le seul ; il vend autre chose que des parapluies* (il vend non seulement des parapluies . . .) ; *nous avons bien autre chose à faire*, etc. . . .

E M. STÉPHAN.

GERMAN

Compound Verbs—(XVIII)

The determinative word is a noun (continued)

NASFÜHREN (to lead by the nose) from die Nase : Goethe uses nasführen in the sense of " to pull one's leg," but usually one says " Er führt sie alle an der Nase herum " (leads them by the nose) like a man leading a bear with a ring through its nose. It is curious that the nose is so conducive to the formation of phrases in German and English : Er steckt seine Nase in alles (busybody)—Er sieht es nicht, bis man ihn mit der Nase drauf stösst. —Ich werde es ihm unter die Nase reiben (rub it in).—Er hat es ihm auf die Nase gebunden (He has told him (with intent to deceive)).—Das Haus sticht mir in die Nase (I would like to have it).—Er rümpft die Nase über alle (turns up).—Ich bin gewohnt, die Nase hoch zu tragen (sign of pride).—Ein hochnäsiger Bursche (stuck-up fellow)—Ich habe es ihm an der Nase angesehen (I guessed it)—Er soll sich an seine Nase fassen (mind his own business).—Er hat es mir vor der Nase weggeschnappt.—Sie tanzen ihm auf der Nase herum (do with him what they like). —Er machte mir eine lange Nase (He made a long nose at me).—Er musste mit langer Nase davonziehen (disappointed).—Er hat eine Nase bekommen (has been reproved).—Er hat ihnen eine wächserne Nase gedreht (He has taken them in).—Immer der Nase nach (straight on !)—etc., etc.

schulmeistern (to dogmatise, to act the pedant) from der Schulmeister (schoolmaster) : Er schulmeistert alle, seine Schüler sowohl wie seine Freunde.

schriftstellern (to scribble) from der Schriftsteller (writer, author) : Er schriftstellert immer weiter, ohne etwas Ordentliches zustande zu bringen (He goes on scribbling without producing anything of importance).

ratschlagen (to consider, consult) from der Ratschlag (advice) : Sie ratschlagten von Morgen bis Abend, ohne zu einem Entschluss zu kommen ; aber sie haben geratschlagt bis in die Puppen hinein (no end).

brandmarken (to brand, stigmatize) from the uncommon die Brandmarke for Brandmal (a mark by burning, a stigma) : Er hat ihn als Feigling gebrandmarkt (branded).

wallfahr(t)en (to go on a pilgrimage) from die Wallfahrt (pilgrimage) : Sie wallfahrten or wallfahrteten nach Jerusalem und andern Wallfahrtsorten. Wallfahren has been formed from the older wallfahrten. Likewise now regularly der Wallfahrer for older Wallfahrter.

wetteifern (to emulate) from der Wetteifer (emulation) : Sie wetteifern miteinander um den Preis. Sie haben immer miteinander gewetteifert (as rivals).

wrtschaften (to manage a house or estate) from die Wirtschaft (management) : Er hat immer schlecht gewirtschaftet (managed his affairs). Die Soldaten haben in dem Dorf fürchterlich gewirtschaftet (The soldiers have played havoc in the village by devastation).

Of some of these verbs the original compound noun no longer exists in the present language, *e.g.* :—

brandschatzen (to raise contributions in time of war, to ravage) from an obsolete Brandschatz : Sie haben die ganze Provinz gebrandschatzt. Its real meaning was " to pay a sum " in order to prevent one's house being burnt down.

lobhudeln (to praise fulsomely) : Diese widerlichen Lobhudler (toady flatterers) haben gelobhundelt bis ihre Lobhudelei (nauseous adulation) allen zuwider war.

lustwandeln (to promenade, saunter for pleasure) from obsolete Lustwandel : Sie lustwandelten im Park auf dem grünen Rasen.

mutmassen (to surmise) : Das hätte ich nicht gemutmasst, aber er mutmasste so etwas seit Wochen. Noun now : die Mutmassung.

nachtwandeln (to walk in one's sleep) : Ein Nachtwandler nachtwandelte auf dem Dach umher.

rad(e)brechen (to murder a language) : Er radebrechte französisch, wie er englisch immer geradebrecht hat, aber er sprach deutsch ganz gut.

wetterleuchten (es wetterleuchtet, there is sheet-lightning) from an old Wetterleucht = Blitz (lightning), leucht is a corruption of leich (play, unsteady movement) : Es hat schon gestern gewetterleuchtet und heute wetterleuchtet es schon wieder.

liebkosen (to fondle) from subst. " Lieb "" to say pleasant things," to fondle :—Sie liebkosten die Kinder die ganze Zeit. Er liebt es, sie zu liebkosen. Er hat mich geliebkost.

liebäugeln (to ogle) : Sie liebäugelten die ganze Zeit. Sie haben wieder mal gehörig geliebäugelt.

Exercise 25 (Fünfundzwanzigste Aufgabe)

II (a) (1) Sie halten eine Versammlung. (2) Sie kommen alle zusammen. (3) Wir werden einig. (4) Wir setzen einen Tag fest. (5) Er tut es den andern zuvor. (6) Er trägt den Sieg davon. (7) Der Zaunkönig fliegt hervor (or hinaus or heraus). (8) Sie erkennen ihn als ihren König an. (9) Er widerspricht mir. (10) Er hinterlässt mir sein Haus.

(b) (1) hielten, hatten . . gehalten, um . . zu halten. (2) kamen . . zusammen, waren . . zusammengekommen, um . . zusammenzukommen. (3) wurden . ., waren . . geworden, um . . zu werden. (4) setzten . . fest, hatten . . festgesetzt, um . . festzusetzen. (5) tat . . zuvor, hatte . . zuvorgetan, um . . zuvorzutun. (6) trug . . davon, hatte . . davongetragen, um . . davonzutragen. (7) flog hervor, war her-

vorgeflogen, um hervorzufliegen. (8) erkannten .. an, hatten .. anerkannt, um .. anzuerkennen. (9) widersprach, hatte .. widersprochen, um .. zu widersprechen. (10) hinterliess, hatte .. hinterlassen, um .. zu hinterlassen.

III (1) Als die Vögel einen König wählen wollten, da hielten sie eine Versammlung. (2) Sobald sie alle zusammengekommen waren, schrieen, pfiffen und sangen sie. (3) Da sie lange nicht einig wurden, so setzten sie einen Tag zum Wettfliegen fest. (4) Die Stunde wurde bestimmt, in (or zu) welcher die ganze Gesellschaft sich erheben sollte. (5) Er versteckte sich in den Federhosen des Adlers, so dass dieser es nicht merkte. (6) Der Zaunkönig, welcher über dem Adler hoch in die Luft flog, wurde König. (7) Sie verfolgten und neckten ihn, weil er eine so kleine Gestalt war. (8) Er verkroch sich in die Zäune und Hecken, um Ruhe zu haben. (9) Wenn man in den Zäunen und Hecken sucht, so wird man ihn finden.

IV. Die Vögel hielten eine Versammlung, weil sie einen König wählen wollten. Als sie alle zusamnengekommen waren, pfiffen, sangen, schrieen und schnatterten sie, so dass niemand ein Wort hören konnte. Da sie nicht einig werden konnten, erklärten sie (or kamen sie überein), dass der, welcher am höchsten fliegen konnte, König sein (or werden) sollte. Zur bestimmten Stunde flogen sie alle in die Luft und versuchten es einer dem andern zuvorzutun. Dem Adler gelang es, höher als all(e) die andern zu fliegen, aber als er nicht mehr höher fliegen konnte, kroch ein Zaunkönig, der sich in den Federhosen des Adlers versteckt hatte, hervor und erhob sich über allen in die Luft, so dass er König wurde. Aber alle Vögel neckten und verfolgten ihn, weil er so winzig klein war. Schliesslich verbarg sich der Zaunkönig in Hecken und Zäunen, um Ruhe zu haben, und da finden wir ihn bis auf den heutigen Tag.

SPANISH

El verbo *agradecer*

El otro día un alumno mío me sometió su traducción de una carta comercial; principiaba (empezaba) como sigue :—

" Escribimos la presente para *agradecerles* a Vds. *por* su *favor* del 1° cte."

En esta frase hay tres faltas mayúsculas (capitales, muy grandes), que son las que indico en bastardilla (*italics*). El verbo *agradecer* no significa *to thank* (dar las gracias) sino *to feel grateful for*, de modo que está mal empleado en la frase citada, cuya traducción correcta sería :—

" Escribimos la presente para darles a Vds. las gracias por su atenta (carta) del 1° cte."

Debo advertir (*remark*) que en español la palabra *favor* nunca se aplica a una carta, sino que siempre representa un favor hecho, un servicio prestado.

También debe notarse que *agradecer* no toma la preposición *por*, la cual únicamente se emplea después del participio pasado de este verbo. Estudien mis lectores los ejemplos siguientes :—

Agradecemos a Vds. el favor que nos han hecho; se lo agradecemos mucho.

Estamos (o quedamos) muy agradecidos a Vds. por el favor, etc.

Agradeceremos a Vds. (que) nos contesten a vuelta de correo (we shall be obliged or feel grateful if you will reply by return of post). Nótese bien el uso del subjuntivo, con o sin *que* (que suele omitirse), en esta última frase donde toda la segunda cláusula forma el objeto directo de *agradecer*.

Lectura (continúa la relación de la señorita viajera)

—" Mil gracias "—le dije yo—" por tanta bondad. Si todos los españoles son tan amables como Vd., no tendré por qué quejarme."

—" Hay de todo (*there are all sorts*), señorita "—me contestó, y desapareció.

Mientras me desayunaba en el *buffet* (salón de refrescos), me hizo mucha gracia (*it greatly amused me*) ver como, al reunirse los viajeros con los que los esperaban en la estación, se abrazaban y se besaban los hombres unos a otros, constándome mucho trabajo contener la risa (*to refrain from laughing*).

Por fin, me encontré instalada en el rápido de (que iba a) Madrid en compañía de unos alemanes, y otra vez tuve que aprovechar mis escasos (*scanty*) conocimientos del castellano para poder sostener una conversación.

En el trayecto (recorrido—*run*) desde Irún a San Sebastián se disfruta de unas vistas preciosas (*lovely*) de esta famosa playa (*beach*). Luego, durante las primeras horas del viaje tierra adentro (*inland*), hacia el sur, el paisaje es un encanto (es encantador—*charming*).

(*continuará*)

W. F. Bletcher.

Esperanto Transmissions (April 24-30)

Sunday.—Langenberg, 8.30 a.m. Course (W. Wingen).
Lille, 9.0 a.m., News (A. Trotin).
Ljubljana 9.0 a.m., Talk.
Hilversum, 9.10 a.m., Course.
Toulouse, 5.15 p.m., Course.

Monday.—Leningrad, 10.5 p.m., News.

Tuesday.—Tallinn, 7.0 p.m., News.

Wednesday.—Stuttgart, 6.40 p.m., " El originala Verkaro " (Dr. Vogt).
Marseille-Provence, 7.15 p.m., Course, News.

Thursday.—Radio Suisse-Romande, 7.10 p.m., Course (P. Bouvier).
Paris, 5.45 p.m., Talk.
Breslau-Gleiwitz, 10 p.m.

Friday.—Stuttgart, 7.30 p.m., Week's Programme (Prof. Cristaller).
Radio-Côte d'Azur, 8.10 p.m., Talk.
Radio-Normandie, 9.0 p.m., Information about the 24th Universal Esperanto Congress.
CT1AA (42.9 m.), 11.30 p.m., Talk.
Leningrad, 10.5 p.m., News.

Saturday.—Heilsberg, 6.40 p.m., Week's Programme.
Huizen, 6.20 p.m., Course.
Lyon-la-Doua, 8.15 p.m., " Humora dialogo (F-ino Mage kaj M. Borel).
Lisbon (283 m.), 11.30 p.m., Course.

Last Week's Log

(*April* 10—16)

By "NORTHERNER"

THE week between April 10 and 16 has been a curious mixture of good days and bad, while throughout the whole period we have had a definite reminder of the approaching warmer weather in the form of small atmospherics which became rather troublesome when any degree of amplification was used. Interference was worst on the long waves, with evidence of distant thunderstorms, while the medium-wave band suffered from background noise, caused for the most part through the magnification of slight static, and heard as an irritating " frying " sound in the loud-speaker.

Signal strength, however, maintained its really excellent level of the past few weeks, and among the greater number of the better-known stations there was but little change in the volume with which they could be received.

Among the long-wave transmitters, Huizen, Radio-Paris, Kalundborg, and Oslo were the best; Moscow was not so well received owing to interference, while Warsaw seems to be slowly diminishing in strength both during his daytime and evening hours of working. Motala was much the same—a good signal but still lacking his one time punch, while Königs-Wusterhausen can always provide splendid reception. Eiffel Tower, I hardly ever, nowadays, find worth much attention while Warsaw is working. For those who can tune in on the top of the medium-wave band, Wilno, in common with so many of the other Polish stations, can often be heard at very good volume but, of course, there is a fair amount of morse interference in the region of his wavelength. Budapest has a varied report for the week: Sunday V.G.; Monday and Tuesday, fair; Wednesday, weak; Thursday, excellent; Friday and Saturday, moderately good.

A new transmitter has made an appearance since my last review, and is as yet unidentified. This station was working between Sebastopol and the North Regional, causing rather severe interference to the last named round about 10 p.m. Prague is still outstanding, and never fails to give an excellent performance, while Brussels No. 1 is as good as ever. I see that the new transmitter at Florence is not yet using his full power, which no doubt accounts for the rather poor reception to date. Rome, on the whole, gave good results, weaker than formerly, but with quite sufficient volume for very pleasing reception. Stockholm is still varying greatly, and cannot be relied upon from day to day, but Toulouse seems to have steadied up during the week under discussion, and was heard equally well on all occasions. Katowice remains a fine signal, and Lwów still retains the good position he has held for some time now. Radio Algiers has not proved very satisfactory in the north this winter, jamming being the chief cause of the failure. Beromünster and Sottens are still almost as reliable as ever but on some nights there has been a little more fading than usual. Berlin-Witzleben was weakish but Langenberg appears to be at the top of his form again, and forms an excellent alternative on any evening. For some time now I have been able to obtain a much better result than formerly from Cork, while Dublin shows only a very poor record. Turin was good on the majority of nights, and Trieste is still very powerful, suffering from occasional heterodynes. Heilsberg is still a first-rate station, and seldom shows the slightest change. Mühlacker, and Frankfurt were both very good. Strasbourg is not so reliable as he was. Nurnberg and Göteborg are showing great promise of a much longer good spell than last year, and up to the time of writing do not seem to have shown any seasonable deterioration. Bordeaux does not seem to be quite such a good station in the North, and

(*Continued in column* 3)

Interference between Stations

(*April* 10—16)

IN addition to Madrid EAJ7, who, as mentioned last week, has deliberately left his allotted wavelength, another Union-Radio station, Seville, has changed his wavelength. Seville used 815 kc/s, his correct frequency, which, though an exclusive one had become almost a common wave; in fact, three foreign stations were using it: Fredriksstad, Helsinki, and Radio L.L. Paris, the last-named using actually 812 kc/s. Seville is now using 790 kc/s, very close to Lwów (788 kc/s), which is scarcely interfered with owing to Seville being weak.

Another Spanish station, Barcelona EAJ15 Radio-Associacion, who was interfering badly with Gleiwitz (1,185 kc/s), by using 1,186 kc/s, has reverted, since the 17th, to his correct frequency of 1,193 kc/s. This station is to increase its power up to 6 or even to 10 kW.

Radio-Lyons (latterly a stronger signal), who shares 1,049 kc/s with Montpellier PTT, was off his usual place on the 12th, being then on 1,036 kc/s, where he was heterodyning both the British common wave and Viipuri (1,031 kc/s).

The new Russian station (previously on 269 kc/s) has gradually gone up to 272 kc/s and, by reason of his considerable power, is now heterodyning Oslo (277 kc/s) rather severely, the separation being only 5 kc/s. Moreover, the interference caused to Oslo for some months by Tiflis (280 kc/s), instead of decreasing, as one would expect with the lengthening of days, seems to have become aggravated. Possibly Tiflis has increased his power, which was already 10 kW.

Hilversum and Tallinn have exchanged wavelengths.

L. B.

(*Continued from previous column*)

although he has a good run for several nights, there are other times when he is barely audible.

Other stations which were well received were Leipzig, Breslau, Hörby, and Bratislava.

Heard on the Continent

By "CENTRAL EUROPEAN"

AFTER having experienced summer reception conditions at the end of March, we have had since then another week of most perfect winter reception. Perhaps this has been due to the damp and rainy weather we have had during the period under review. With the exception of the region below 250 metres—subject to specially strong fading—reception has been equally good on all wave-lengths.

Morse interference is an increasingly disturbing factor on the long-wave region. For instance, it is hopeless to expect to hear Kaunas. Radio-Paris, too, continues to remain silent. It is a mystery why this 75 kW transmitter is less audible than the smallest Spanish transmitter. Reception of Daventry National has been excellent, and no longer subject to the morse interference of only a few weeks ago. Reception of Huizen has greatly improved, and the audibility of Lahti has also grown much better. But Warsaw is still the best heard of all European stations. Its signal strength is astonishing. Reception of Motala has been better than during preceding weeks, but the Swedish programmes are far better heard *viâ* Hörby or Göteborg. I am able to record a great improvement in the reception of Kalundborg, even during the daytime. Istanbul is again audible. Reception of Oslo has been excellent.

Leningrad was by far the best heard of all the Russian stations; being well received even during the morning hours. Minsk would appear to have increased its power. Reception of Ljubljana has been quite good and free from all fading. So also with Budapest; this station appears to have regained its strength of last year. Reception of Lausanne, which I have not been able to record once during the last three years, has, strangely enough, been quite excellent during the last fortnight. The situation between Palermo and Sundsvall is an interesting one. Although the former's power is a third of that of the latter, and although it is situated four times as far from my set as the Swedish station, Palermo's strength is considerably the greater.

Not much could be heard of Florence, for the neighbouring Moscow experimental transmitter mars its reception. The most powerful signal by far, in this region, has again been Prague—to the detriment of the North Regional station. On the common wave, 662 kc/s, the small Spanish transmitter, San Sebastian, was audible on several evenings.

I have also heard a French experimental transmitter, using a frequency of 671 kc/s, quite a strong and steady signal. This is probably the new 7 kW transmitter of the Paris School of Telegraphy, which is to operate till the Paris high-power station at Villebon-sur-Yvette is completed. Rome has been strongly interfered with by a Norwegian station—apparently either Aalesund or Notodden must have left the common frequency of 671 kc/s. Stockholm could be received at full loud-speaker strength.

Cuxhaven (Germany); coastal radio station; telephony with ships; also fog beacon and D.F. station. **FUZZ (Warminster)**: Regret, cannot trace. **TURBOT (Edinburgh)**: Moscow (Stalin). **G. G. (Bournemouth)**: (4) regret, cannot supply this information; (5) probably ON4 (*quatre*) PA, amateur experimental transmitter at Ghent (Belgium). **IMA OORS (Glasgow)**: Moscow (Stalin) on 424.3 m. (707 kc/s). **HALLIGEY (Cardiff)**: Many thanks for information. **LISTEN (Loughborough)**: (1) Moscow (Stalin); (2) San Sebastian (EAJ18). **OVROM (Stamford Hill)**: Regret, cannot trace. **TRACY (Liverpool)**: (302) DOA, Döberitz (Germany); (303) GBC or GCRX, Rugby. **MALOUIN (N.1)**: (1) most of the French stations advertised a relay of a performance of *La Samaritaine* (Rostand) from Paris PTT, but possibly altered programme by Lille PTT or Toulouse (PTT); (2) cannot understand W/L; only French play advertised was broadcast by Radio Strasbourg; (3) apparently Settens, but not advertised in programmes. **SLIM (York)**: (1) Vienna Experimental; (2) Reykjavik; (3) Leningrad. **CURIOUS (Monkseaton)**: Cuxhaven Radio (Germany), telephony with trawlers on 177.5 m. **TELL ME (Cardiff)**: Regret, cannot trace. **OBERTRA (Twickenham)**: Apparently harmonic of Heston airport (833 m.). **GRID LEAK (S.W.1)**: Wilno relaying Warsaw. **DDD (Helensburgh)**: Rome (2RO) on new wavelength. **IWONDA (Dulwich)**: Madrid (EAJ7). **1-20 (Shepherd's Bush)**: Eiffel Tower relaying commentary on football match (France *v.* Italy) played at the Colombes Stadium (Paris).

Which Station Was That?

Answers to Correspondents

BM/NDDA (N.16): Grenoble PTT; own concert. **HOT BUN (Margate)**: Two stations heard, namely, Heilsberg (interval signal and weather report); Turin (music). **WOTWOZIT (Purley)**: Details fully tally with V.A.R.A. and V.P.R.O. broadcasts from Hilversum on 296.1 m. **EXPERIMENTER (Treherbert)**: Apparently test; possibly Radio Strasbourg or Brno. **PINNER (Hastings)**: DEQ, Nauen (Germany) on 29 m. **LAPIN (Dufftown)**: We have no information regarding a new Dutch short-wave transmitter relaying Hilversum on about 42 m.; these broadcasts were recently carried out on about 49.9 m. **FIBRE BILL (Penge)**: Surely 1,352 kilocycles, not metres; Radio Normandie (Fécamp), sponsored broadcast. **MAYBE (Fulham)**: DGK, Nauen (Germany). **SE CLEAIN DÉAG (Waterford)**: (1) Vague, but possibly Petrovsk-Volga (RV55) on 411 m.; (2) two vague; regret, cannot trace. **GOLDFINCH (Nottingham)**: Apparently a test by PCJ, Hilversum, which was due to start up again this month. **MYSTIC CALL (Shadwell)**: Surely a "leg-pull"; local experimental transmitter. **BLUCHER (Walbottle)**: Would tally with harmonic of Daventry National. **LAPIN (Dufftown)**: Details of political speeches relayed by Paris PTT and official provincial stations are seldom published; are usually taken by Bordeaux-Lafayette, Strasbourg, Lille, Rennes, etc. As you do not estimate W/L we cannot indicate transmitter heard. **PAL (Bristol)**: Poste Parisien; new high-power transmitter testing. **COMOB (Lee-on-the-Solent)**: Are you sure of your wavelengths? (7) the Rome operatic broadcast was also transmitted on that night on 25.4 m.; we cannot trace any relay on 43.2 m.; (8) possibly Spanish experimental transmitter with which W/L would tally. It is frequently heard working on Saturday afternoons. **NIMROD (Brentford)**: Apparently trans-Atlantic telephony (Rugby). **STANTON (Denmark Hill)**: has also been reported by other listeners in and around your district. Suggest local amateur experimental transmitter. **WARRIOR (St. Leonards-on-Sea)**: Madrid (EAJ7) now on 410 m. **BOGER (Huddersfield)**: Brussels (No. 1); luncheon hour transmission. **SWIFT (Derby)**: Berlin (Witzleben) extended transmission; Presidential Elections. **QUE ESTACION (Chesterfield)**: Nijni Novgorod (U.S.S.R.) has been reported on 1,685 m. **BRANDON (Buckhurst Hill)**: Many thanks for your information. **OBERTELLE (East Didsbury)**: Please number your queries. (1) Leningrad; (2) Motala relaying Stockholm. **KINNAIRD (Paisley)**: Madrid (EAJ7) on 410 m. **WAIT (Wigan)**: (1) Heilsberg relaying Berlin. Special late broadcast in view of Presidential Elections; (2) Madrid (EAJ7) on new wavelength. **LEAPYEAR (Dundee)**: Reykjavik. **CAMINYX (Chadwell Heath)**: Madrid (EAJ7). **STIFFY (Dagenham)**: Moscow (Technical High School) on 358 m.; relays T.U. and Old Komintern. **FARAJ ALLAH (Bridlington)**: Königs Wusterhausen (Press). **T. T. T. (Southall)**: (1) Frankfurt-on-Main relaying Stuttgart programme; (2) Hamburg broadcasts weather and news at 4.45 a.m. G.M.T. **STATION SELECTOR (Aldershot)**: (1) Malmö relaying Stockholm; (2) Radio Normandie (Fécamp) on 1,352 k/cs. **ENQUIRER (Walthamstow)**: (166) Kiev; (167) Tallinn. **KNOB TWISTER (Edmonton)**: Leningrad; English Lesson. **TINKER (Lochgoilhead)**: (1) Barcelona (EAJ15); (2) Madrid (EAJ7) on new W/L (410 m.). **CARNAN (Cornwall)**: (1) possibly Sverdlovsk (RV5); (2) Nijni Novgorod is said to be working on 502.4 m.; (3) possibly Odessa (RV13) on 450.4 m. **ALI BABA'S CAMEL (Londonderry)**: Radio Sonora, Oporto (Portugal). Has also been heard on 243.5 m. (2) Madrid (EAJ7) on 411.5 m. **WHAR-IZ-IT (Rotherham)**: (1) Moscow (Stalin); concert for night workers; (2) Leningrad. **JONNY SPIELT AUF (Ashorne)**: GGM (Bar Light Vessel, Mersey,; GGG (Round Island, Scilly); MMM (May Island, Firth of Forth); GGB, South Bishop L. V. **PAT (Dalston)**: Apparently British amateur experimental transmitter. To identify you must pick-up call-sign. **NOVICE (Liverpool)**: Regret, cannot give information desired as it is seldom that details of these operatic relays are published in programmes. Alterations are frequently made and the broadcast is announced only on the previous day. **VAL (Peterborough)**: (1) Moscow (Stalin); (2) possibly Odessa (RV13). **HOT BUN (Margate)**: Genoa; S.B. from Turin, Trieste, etc. The call has been altered to "Radio Alt' Italia." **RHINO (Thornton Heath)**: (1) WOO, Deal Beach (N.J.) working with Atlantic liners, in this instance with S.S. "Olympic"; (2) aerodrome short-wave transmission. **R. M. W. (Ashford)**: (1) Tiflis; (2) scale of signal strength, see last issue. **SHORT-WAVE CLIENT (Heckington)**: LR3, Radio Nacional, Buenos Aires (315.2 m.). **GREEN INK (Ramsgate)**: Leningrad; International concert from the Radio Theatre. **SEARCHER (Ramsgate)**: Lille PTT. **3817 (Cardiff)**: Surely Moscow (T.U.) on 50 m. **17 YEARS (Wythall)**: Apparently amateur experimental transmitter; gramophone record. **SCRUM (Belfast)**: (1) cannot trace, but we have reports of a new Russian s/w station working on about 39.50 m.; (2) new Italian s/w transmitter (Tripoli) testing on about 43.75 m. **FUSCUS (Lowestoft)**: Reykjavik; gramophone records. Icelandic local time is 2 hours behind B.S.T. **MOVING COIL (Fulham)**: (1) regret, cannot trace transmitter as you do not give call-sign, but station called was that of an amateur experimenter at Rossendale (Lancs); (2) Scheveningen-Haven (Holland); commercial transmitter (no broadcasts of entertainments, etc.). **HONTUS (Colne)**: (A) Radio Normandie (Fécamp); (b) Moscow (Stalin); (c) Leningrad; (d) Prague. **G. G. (Bournemouth)**: (1) we have no information regarding a Swiss short-wave station on that wavelength; in this instance the relay may have been carried out through GBU, Rugby on 30.15 m. It was through Radio Nations that most of the speeches from Geneva were transmitted. **KNOTSURE (Sunderland)**: LR3, Radio Nacional, Buenos Aires. **JA GEE (Sittingbourne)**: WMI, Deal Beach (N.J.) 20.50 m. relaying programme to Switzerland and later calling GBW, Rugby. **INTERESTED (Moseley)**: Warsaw. **REG. No. 10,145 (Gosforth)**: Tallinn is now on Hilversum's old W/L., the latter having exchanged channels with this transmitter. **GILMOUR (Thornton)**: Proprietary names must not be used as *noms-de-plume*. Slight technical hitch in transmission. **EARLY RISER (Ingatestone)**: N.C.R.V. broadcast from Huizen (1,875 m.); possibly gramophone records. **BROMIUM A (Bath)**: Possibly a test prior to relay to U.S.A.; possibly heard through GBS, Rugby (24.60 m.), working with WND, etc., Deal Beach (N.J.). **TEST VALLEYITE (Whitchurch)**; **OH MONAH (Plymouth)**; **ITALIAN (Bermondsey)**; **JOHN O' THE DIAL (Highgate)**; **SHORTWAVER (Nuneaton)**; **GRID BIAS (Thornton Heath)**; **DUSTY MILLER (Thornaby-on-Tees)**; **JAY (Harrogate)**: Prato Smeraldo (Rome) testing on new wavelength (42.7 m.); a relay of the Rome (IRO) operatic performance. **SHORT-WAVER (Nuneaton)**: (a) Poznań (31.35 m.); (b) 1AC, Coltano (23.5 m. and other wavelengths); (c) Russelede (Belgium) on 15.625 and 29.04 m. **FLUMMUXED (W.1)**: Bergen relaying Oslo. **A GOOD HAUL (Sidcup)**: Government stations; wave calibration. **SUSIE (Port Sunlight)**: Moscow (Stalin); concert for night workers. **BASH (Margate)**:

(*Continued in col. 1*)

The Alternative Postal Service

In addition to the free service of "Which Station was That?" printed in these columns, replies to queries can be obtained within forty-eight hours of receipt of details, on payment of 6d. per query, in stamps or P.O., accompanied by stamped addressed envelope (marked in left hand top corner "Postal Query Service"), and coupon as per conditions for "Free Queries."

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This coupon is valid for ONE QUESTION only, and should be cut out and attached to a separate sheet, upon which the following questions should be answered in the order shown, *and, in the case of FREE queries, a copy of the answers should be enclosed.* No coupon more than one month old is valid.

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Stations in Order of Frequencies and Wavelengths

Corrected in accordance with the latest official information available at the time of going to press

The figures in black type represent the power according to the Copenhagen Power-Rating, but carrier-wave power only is shown

Kc/s	M.	kW.	Station	Dial Readings
155	1935	7	Kaunas (Lithuania)	
160	1875	8.5	Huizen (Holland)	
167	1796	54	Lahti (Finland) (relays Helsinki)	
174	1725	13.5 / 75	Radio Paris (CFR)	
183.5	1635	60	Königs Wusterhausen (Zeesen) (Germany) Relays Berlin.	
193	1554.4	30	Daventry National (Great Britain)	
195	1538	7	Ankara (Turkey)	
202.6	1481	100	Moscow (Old Komintern) (RV1) (Russia)	
207.5	1445.7	13	Eiffel Tower (FLE)	
212.5	1411	120	Warsaw No. 1 (Poland)	
222.2	1350	0.5	Kasbah (Tunis)	
222.5	1348	30	Motala (Sweden) (relays Stockholm)	
230.1	1304	100	Moscow (Trades Union)	
238.1	1260	4	Novosibirsk (Russia)	
242.5	1237		Vienna Experimental (Austria)	
244	1229.5	0.6	Boden (Sweden)	
250	1200	5 / 21	Istanbul (Turkey) / Reykjavik (Iceland)	
260	1153	7.5	Kalundborg (Denmark) (relays Copenhagen)	
268.5	1116	40	Moscow, Popoff	
277	1083	60	Oslo (Norway)	
284.9	1053	10	Tiflis (Russia)	
300	1000	100	Leningrad (Russia)	
320	937.5	20	Kharkov (Russia) RV20	
353.5	848.7	4	Rostov-Don (Russia)	
368.1	815	20	Kiev (Russia)	
385	778	2	Petrozavodsk (Russia)	
389	770	0.6	Östersund (Sweden) (relays Sundsvall)	
394	761.4	1.8	Nijni Novgorod (Russia)	
395	760	1.5	Geneva (Switzerland)	
416.7	720	20	Moscow (Experimental)	
428.6	700	4	Minsk (Russia)	
442	680	0.6	Lausanne (Switzerland)	
522	574.7	2.5	Ljubljana (Yugoslavia)	
527	570	0.25	Freiburg-im-Breisgau (Germany) (relays Stuttgart)	
530	566	0.25	Hanover (Germany) (relays Hamburg)	
531	565	2	Smolensk (Russia)	
533	563	16	Wilno (Poland)	
536	560	0.25 / 1.5 / 0.7	Augsburg (Germany)(relays Munich) / Kaiserslautern (Germany) (relays Munich). / Hamar (Norway) (relays Oslo)	
545	550	18.5	Budapest No. 1 (Hungary)	
554	542	3 / 10	Palermo (Italy) / Sundsvall (Sweden)	
563	533	1.5	Munich (Germany)	
572	525	15	Riga (Latvia)	
581	517	15	Vienna (Rosenhügel) (Austria)	
590	509	15	Brussels No. 1 (Belgium)	
599	500.8	20	Florence (1FI) (Italy)	
603.6	497	1.2	Moscow (Russia)	
608	493.4	1.2	Trondheim (Norway)	
614	488.6	120	Prague (Czechoslovakia)	
625	480	50	North Regional (Manchester) (Great Britain)	
630.2	476	1.2	Sebastopol (Russia)	
635	473	60	Langenberg (Germany)	
644	465.8	1.5 / 0.5	Lyons (La Doua) (France) (relays PTT). / Tartu (Estonia)	
653	459	60	Schweizerischer Landessender (Beromünster) (Switzerland)	
662	453.2	0.5 / 0.5 / 0.5 / 0.7 / 1 / 0.6 / 0.1 / 0.15	Bödo (Norway) / Danzig (Free City) (relays Königsberg). / Klagenfurt (Austria) (relays Vienna) / Porsgrund (Norway) (relays Oslo) / Salamanca (Spain) (EAJ22) / San Sebastian (Spain) (Mon., Wed., Fri. 7.30—9 p.m., other days 10 p.m. to midnight). / Tromsö (Norway) / Uppsala (Sweden) (relays Stockholm)	
666	450.4	4	Odessa (Russia)	
671	447.1	0.35 / 0.08 / 0.7 / 0.15	Aalesund (Norway) / Notodden (Norway) / Paris (PTT) (Ecole Supérieure) (France) / Rjukan (relays Oslo) (Norway)	
680	441	50	Rome (1RO) (Italy)	
689	436	0.25 / 55	Malmberget (relays Boden) (Sweden) / Stockholm (Sweden)	
697	430.4	2.5	Belgrade (Yugoslavia)	
707	424.3	2 / 100	Madrid (Union Radio) (EAJ7)(Spain) 7—8.30 p.m. and (except Monday) 10 p.m. to 12 midnight. / Madrid (Radio España) (Spain) 5—7 p.m. (Mon. 5 p.m. to 12 midnight) / Moscow-Stalin (Russia)	
715	419.5	1.5	Berlin (Witzleben)	
721.1	416	6	Rabat (Morocco)	
725	413	1.2	Dublin (2RN) (Ireland)	
734	408	16	Katowice (Poland)	
743	403	25	Radio Suisse Romande (Sottens) (Switzerland)	
752	398.9	25	Midland Regional (Great Britian)	
761	394	12	Bucharest (Romania)	
770	390	10 / 1.5	Archangel (Russia) / Frankfurt (Germany)	
779	385	8	Toulouse (Radio) (France)	
788	381	16	Lwów (Poland)	
797	376.4	1	Glasgow (5SC) (Great Britain)	
806	372	1.5	Hamburg (Germany)	
810	370.4	0.5	Radio LL (France)	
815	368.1	1 / 13.2 / 1.5	Bolzano (Italy) (1BZ) / Helsinki (Finland) / Seville (Union Radio) (EAJ5) (Spain)	
816	367.6	0.7	Fredriksstad (Norway) (relays Oslo)	
824	364	1	Bergen (Norway)	
825.3	363.3	13	Algiers (N. Africa)	
832	360.5	60	Stuttgart (Mühlacker) (Germany)	
843	356	50	London Regional (Great Britain)	
852	352.1	7	Graz (Austria) (usually relays Vienna)	
855.5	351	1.2	Leningrad (Russia)	
860	349	8	Barcelona (Radio Barcelona) (EAJ1) (Spain)	
869	345	11.5	Strasbourg (Brumath) (France)	
878	342	35	Brno (Czechoslovakia)	
887	338.2	15	Brussels No. 2 (Belgium) (Flemish programme).	
896	335	5.5 / 1.9	Cadiz (Spain) / Poznań (Poland)	
905	331.5	7	Milan (Italy)	
914	328.2	2 / 1.2	Grenoble (PTT) (France) / Poste Parisien (Paris)	
923	325	1.5	Breslau (Germany)	
932	322	10	Göteborg (Sweden) (relays Stockholm)	
941	319	0.25 / 1.5 / 1	Dresden (Germany) (relays Leipzig) / Naples (1NA) (Italy) / Sofia (Rodno-Radio) (Bulgaria)	
950	315	1.6	Marseilles (PTT) (France)	
959	312.8	1.5 / 10	Cracow (Poland) / Genoa (1GE) (Italy) / Radio-Vitus (France)	
968	309.9	1	Cardiff (5WA) (Great Britain)	
977	307	0.5 / 0.75	Falun (Sweden) / Zagreb (Yugoslavia)	
986	304	13	Bordeaux-Lafayette (PTT) (France)	
995	301.5	50	North National (Manchester) (Great Britain)	
1004	298.8	8.5	Tallinn (Estonia)	
1013	296.1	11	Hilversum (Holland)	
1022	293	2.5 / 0.7	Kosice (Czechoslovakia) / Limoges (PTT) (France)	
1031	291	0.25 / 1 / 13.2	Pietarsaari (Jacobstad) (Finland) (relays Helsinki) / Tampere (Finland) (relays Helsinki) / Viipuri (Viborg) (Finland) (relays Helsinki).	
1040	288.5	1 / 1 / 0.12 / 0.3 / 1 / 0.12 / 0.12 / 0.12	Aberdeen (2BD) / Bournemouth (6BM) / Dundee (2DE) / Edinburgh (2EH) / Newcastle (2NO) / Plymouth (5PY) / *Sheffield (6FL) / Swansea (5SX)	
1043	287.6	0.7	Lyons (Radio) (France)	
1049	286	0.8	Montpellier (France)	
1058	283	0.5 / 0.5 / 0.5 / 0.5	Berlin Relay (Germany) / Magdeburg (Germany) / Stettin (Germany) (relays Berlin) / Innsbruck (Austria) (relays Vienna)	

British Relay Stations

*Not radiating.

STATIONS IN ORDER OF FREQUENCIES AND WAVELENGTHS (Continued)

Kc/s	M.	kW.	Station	Dial Readings
1063	282.2	2	Lisbon (Portugal)	
1067	281	0.75	Copenhagen (Denmark)	
1071	280		Radio Liége (Belgium)	
1076	279	14	Bratislava (Czechoslovakia)	
1085	276.5	60	Heilsberg (Germany) (rel. Königsberg)	
1096	273.7	7	Turin (Italy)	
1103	272	1.3	Rennes (France)	
1112	270	0.25	Bremen (Germany) (relays Hamburg)	
1121	267.6	0.7	Oviedo (Spain)	
		1.5	Radio Valencia (Spain)	
1130	265.4	1.3	Lille (PTT) (France)	
1137	263.8	11	Moravská-Ostrava (Czechoslovakia)	
1147	261.6	50	London National (Great Britain)	
1157	259	2	Leipzig (Germany)	
1166	257	10	Hörby (Sweden) (relays Stockholm)	
1175	255	0.7	Toulouse (PTT) (France)	
1184	253	5	Gleiwitz (Germany) (relays Breslau)	
		1	Almeria (Spain) (EAJ18)	
1193	252	1	Barcelona (Association National) (EAJ15)	
		0.25	Trollhättan (Sweden)	
1202	249.6	0.3	Varberg (Sweden)	
1205	249		Juan-les-Pins (Nice) (France)	
1211	247.7	0.2	Kalmar (relays Stockholm)	
		10	Trieste (Italy)	
		0.5	Berne (Switzerland)	
		0.4	Cartagena (Spain)	
		0.25	Cassel (Germany) (relays Frankfurt)	
		0.2	Eskilstuna (Sweden) (relays Stockholm).	
1220	246	0.25	Kiruna (Sweden) (relays Boden)	
		0.5	Linz (Austria) (relays Vienna)	
		0.4	Säffle (Sweden) (relays Stockholm)	
		0.6	Turku (Åbo) (Finland) (relays Helsinki).	
1229	244.1	0.5	Basle (Switzerland)	
1238	242	1	Belfast (2BE) (Ireland)	
1247	240.6	0.5	Stavanger (Norway)	
1250	240	1.5	Radio Beziers (France)	
1256	239	2	Nürnberg (Germany) (relays Munich)	
		3	Bordeaux Sud-Ouest (France)	
1265	237.2	1	Radio-Nîmes (France)	
		0.2	Örebro (Sweden) (relays Stockholm)	
1274	235.5	0.5	Christiansand (Norway)	
1283	235	2	Lodz (Poland) (Experimental)	
1292	232.2	0.25	Kiel (Germany) (relays Hamburg)	
		0.25	Norrköping (Sweden)	
		0.2	Hälsingborg (Sweden)	
1301	231	1.25	Malmö (Sweden) (relays Stockholm)	
		0.2	Umea (Sweden)	
1310	229	0.05	Uddevala (Sweden)	
1328	226	0.15	Hudiksval (Sweden)	
1337	224.4	1	Cork (6CK) (Ireland)	
1364	219.9	10	Fécamp (Radio Normandie) (France)	
		0.5	Flensburg (Germany) (relays Hamburg).	
1373	218	0.7	Pori (Björneborg) (Finland) (relays Helsinki).	
		0.5	Salzburg (relays Vienna)	
1382	217	0.25	Karlstad (Sweden)	
		0.5	Königsberg (Germany)	
1391	216	0.2	Halmstad (Sweden)	
			Radio Chatelineau (Belgium)	
1400	214.2	1.9	Warsaw, No. 2 (Poland) (Experimental)	
1428	210		Budapest, No. 2 (Hungary)	
1450	207	0.15	Borås (Sweden)	
1460	206	0.2	Ornsköldsvik (Sweden)	
1470	204	0.2	Gävle (Sweden) (relays Stockholm)	
1480	203	0.25	Kristinehamn (Sweden)	
1490	202	0.25	Jönköping (Sweden) (relays Stockholm)	
1530	196	0.2	Karlskrona (Sweden) (relays Stockholm).	
1714	175		St. Quentin (France)	

DEVIATIONS

529.9	566.1	—	Wilno (Poland)	
570.2	526.1	—	Palermo (Italy)	
604.9	496	—	Trondheim (Norway)	
790	379.8	—	Seville (Spain)	
972.8	308.4	—	Radio Vitus (France)	
1036	289.5	—	Lyons (France)	
1105	271.5	—	Rennes PTT (France)	
1127.1	266.1	—	Radio Valencia (Spain)	
1198.6	250.3	—	Juan-les-Pins (Nice) (France)	
1203	249.4	—	Kalmar (Sweden)	
1292.9	232	—	Malmö (Sweden)	

(*For List of Short-Wave Stations see page* 798.)

Schedule of Advance Programmes

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For the benefit of traders who may wish to make arrangements for demonstrating, we are printing each week a schedule of the programmes to be transmitted by the National and Regional stations. It will be noticed that these schedules concern programmes to be transmitted a fortnight hence, and it is felt that they will also be of particular service to those of our readers living abroad who will be able to use them in connexion with the reception of the Experimental Short Wave Station, G5SW, which relays either the National (5XX) or London Regional programmes from 7 p.m.

News Bulletins are transmitted daily (except on Sunday) at 12.30 p.m. (Saturdays, 12.45), 6.15 p.m., and midnight.

SUNDAY, MAY 8

	National	London Reg.	Midland Reg.	North Reg.
Afternoon	"Sousa" Programme	As National	Studio Orch.	As National
	Pouishnoff Recital	Light Music	Pianoforte Recital	Instrumental Concert
Evening Programme	Hotel Orch.	Symphony Con.	As London Reg.	As London Reg.

MONDAY, MAY 9

	National	London Reg.	Midland Reg.	North Reg.
Morning	Studio Orch.	As Midland Reg.	Cinema Orch.	As Midland Reg.
Afternoon	Cinema Orch.	As Midland Reg.	Cinema Organ	As Midland Reg.
	Sonata Recital	As Midland Reg.	Studio Orch.	As Midland Reg.
	Hotel Orch.	As National		As National
1st Evening Programme	'Cello Recital	Light Music	Studio Orch.	Studio Orch.
	Play	Chamber Music	As London Reg.	As London Reg.
2nd Evening Programme	Opera Relay	Military Band	As London Reg.	Organ Recital
	Dance Music	Dance Music	As London Reg.	As London Reg.

TUESDAY, MAY 10

	National	London Reg.	Midland Reg.	North Reg.
Morning	Cinema Organ	Studio Concert	As London Reg.	As London Reg.
Afternoon	Hotel Orch.	As North Reg.	As North Reg.	Pianoforte Recital
	Talks	As Midland Reg.	Studio Orch.	As Midland Reg.
	Hotel Orch.	As National		Evensong
1st Evening Programme	French Talk	As North Reg.	Military Band	Band Concert
	Light Orch. Con.	Vaudeville	As London Reg.	As London Reg.
2nd Evening Programme	Symphony Con.	Gram. Records.	Organ Recital	Studio Orch.
	Dance Music	Dance Music	As London Reg.	As London Reg.

WEDNESDAY, MAY 11

	National	London Reg.	Midland Reg.	North Reg.
Morning	Cinema Organ	As Midland Reg.	Studio Orch.	As Midland Reg.
Afternoon	Gram. Records	As Midland Reg.	Organ Recital	As Midland Reg.
	Hotel Orch.	As North Reg.	As North Reg.	Studio Orch.
	Symphony Con.	As National		As National
1st Evening Programme	Talks	Relay from Covent Garden (*Tristan*, Act I)	As London Reg.	As London Reg.
	Song and Violin Recital			
2nd Evening Programme	Play	Orchestral Con.	Light Orch. Con.	Theatre Relay
	Dance Music	Dance Music.	As London Reg.	As London Reg.

THURSDAY, MAY 12

	National	London Reg.	Midland Reg.	North Reg.
Morning	Scottish Studio Orchestra	Cinema Organ	As London Reg.	As London Reg.
Afternoon	Cinema Orch.	As North Reg.	As North Reg.	Studio Orch.
	Evensong	As North Reg.	As North Reg.	Hotel Orch.
	Studio Orch.	As National		As National
1st Evening Programme	German Talk	Military Band	Light Music	Hotel Orch.
	Chamber Music	Choral and Orch. Con.	Band Concert	Violin and Pianoforte Recital
2nd Evening Programme	An International Programme	Play	As London Reg.	As London Reg.
	Dance Music	Dance Music	As London Reg.	As London Reg.

FRIDAY, MAY 13

	National	London Reg.	Midland Reg.	North Reg.
Morning	Cinema Orch.	As Midland Reg.	Cinema Organ	As Midland Reg.
Afternoon	Organ Recital	As North Reg.	As North Reg.	Cinema Orch.
	Gram. Records	As North Reg.	As North Reg.	Studio Orch.
	Scottish Studio Orch.	As National		As National
1st Evening Programme	Talks	Tango Orch.	Gram. Records	As London Reg.
	"Songs from the Shows"	Cinema Orch.	Light Music	Organ Recital
2nd Evening Programme	Military Band	Contemporary Music	As London Reg.	As London Reg.
	Dance Music	Relay from Covent Garden	As London Reg.	As London Reg.

SATURDAY, MAY 14

	National	London Reg.	Midland Reg.	North Reg.
Morning	Northern Studio Orch.	As National		As National
Afternoon	Cinema Orch.	As National		As National
	As North Reg.	As North Reg.	Dance Music	Studio Orch.
	Cinema Organ	As National	As National	As National
1st Evening Programme	Vaudeville	Light Music	Military Band	Band Concert
	Male Voice Choir	Orchestral Con.	Studio Orch.	Studio Orch.
2nd Evening Programme	Farewell to Savoy	"Songs from the Shows"	Dance Music	As London Reg.
	[illegible]	Dance Music	As London Reg.	As London Reg.

PROGRAMMES FOR SUNDAY (April 24)

PRINCIPAL EVENTS

SERVICES AND SACRED MUSIC

10.0 a.m. Warsaw: High Mass from Lwów.
11.30 ,, Leipzig, most German stations, Vienna: Church Cantata (Bach).
8.55 p.m. Huizen: "Jerusalem" (Oratorio).

SYMPHONY CONCERTS

3.10 p.m. Hilversum: The Concert-Gebouw.
5.0 ,, Rome: Relay from the Augusteo.

CONCERTS (VOCAL AND INSTRUMENTAL)

7.0 a.m. Hamburg and most German stations: Harbour Concert.
8.0 p.m. Brussels No. 2: Orchestra and Viola d'amore.
8.0 ,, Hamburg: Wagner.
8.0 ,, Oslo: "The Song of the Bell" (Bruch).
9.15 ,, Schweizerischer Landessender.

OPERAS and OPERETTAS

8.0 p.m. Brussels No. 1: "Les Mousquetaires au Couvent" (Varney).
9.0 ,, Italian stations (Northern): Opera relay.

PLAYS AND TALKS

8.30 p.m. Strasbourg: "Le Bourgeois Gentilhomme (Molière), Lully's music.
8.45 ,, Schweizerischer Landessender: "The Music Cure" (Shaw).

MISCELLANEOUS

1.20 p.m. Stockholm: The Changing of the Palace Guard.
3.0 ,, Radio-Paris: The French Cup Final.
5.50 ,, Vienna: Austria *v.* Hungary (football).
10.0 ,, Berlin, German stations, Vienna: Election results.

DANCE MUSIC

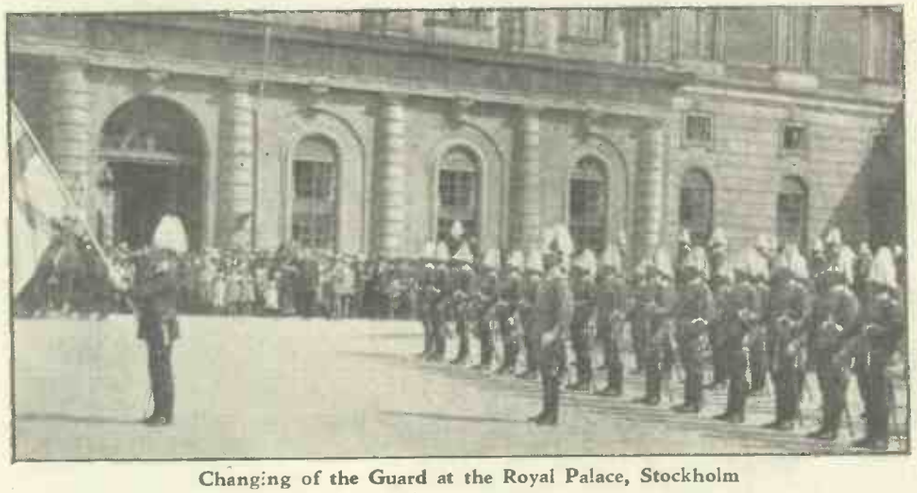
10.20 p.m. Hamburg. 11.0 p.m. Copenhagen.

A Dutch Oratorio

An oratorio to Dutch words is something of a rarity, as the Dutch people sing almost as well in English, French or German, and even in some cases in Hungarian and other remote languages, as they do in their own tongue. That gave the first performance of *Jerusalem*, by Johan Winnubst, the organist of the Roman Catholic Cathedral at Utrecht, a special interest, which is being renewed by its second performance; it is being broadcast on the HUIZEN long-wave (1875 metres) to-night. The interest is not only in that, however, but also because an important feature of the work is the combination of the spoken voice, of both soloists and chorus, with the orchestra. Another feature of the work is that it opens in a turbulent and often harshly discordant manner and gradually becomes more tranquil, to finish with a beautiful setting of the Latin hymn "Coelestis urbs Jerusalem," entirely in concords or common chords. Mr. Winnubst, the composer and conductor of the work, is a comparatively young man, but is regarded by many as one of the most promising of a number who are leading the way to the beginning of a distinctively Dutch school.

A Stockholm Ceremonial

The changing of the guard at the beautiful Royal Palace of Stockholm is one of the most popular events in the daily life of the Swedish capital. The broadcasting of the ceremony and the military band concert which accompanies it, has made it a feature in Swedish radio programmes which is very much looked forward to by listeners.



Changing of the Guard at the Royal Palace, Stockholm

NATIONAL

	kc/s	m.	kW.
London:	1,148	261.3	50
Daventry:	193	1,554.4	30
Northern:	995	301.5	50

10.30—10.45 *p.m.*—Time Signal (Greenwich); Shipping Forecast.
3.0 *p.m.*—Time Signal (Greenwich).
3.0—Matinée Concert from The New Shakespeare Memorial Theatre, Stratford-upon-Avon. Frank Mullings (Tenor). The City of Birmingham Orchestra. Conductor, Leslie Heward.
4.0—"What is a Saint?"—XIV. "Don Bosco," by the Reverend Father C. C. Martindale, S.J.
4.15—Part II of Handel's "Messiah." Stiles Allen (Soprano), Doris Owens (Contralto), Eric Greene (Tenor), Kenneth Ellis (Bass). Berkeley Mason (Harpsichord). The Wireless Chorus. The B.B.C. Orchestra (Section E), conducted by Stanford Robinson.
5.30—A Pianoforte Recital by Borovsky. Sinfonia, Sarabande and Gavotte (English Suite in G Minor) (Bach). Prelude and Choral for Organ, Nun Freut euch lieben Christen (Bach, arr. Busoni). Three Preludes (Op. 39) (Liadov). Prelude alla Marcia, in G Minor (Rachmaninov). La Campanella (Liszt).
6.0—6.15—For the Children.
7.55—A Religious Service for the Industrial Christian Fellowship.
8.45—The Week's Good Cause. Appeal on behalf of The Young Women's Christian Association, by a girl member.
8.50—"The News."
9.0—Time Signal (Greenwich).
9.5—Albert Sandler and the Park Lane Orchestra. Olive Groves (Soprano). Orchestra: Overture, Rosamunde (Schubert). Melody (Frederick Rosse). Olive Groves: Song of Night (Loughborough). Bird of Love Divine (Wood). Orchestra: Petite Suite for Orchestra (Debussy). Albert Sandler: Concerto in E Minor (Mendelssohn). Andante and Finale. Olive Groves: When May walks by (O'Neill). Down Vauxhall Way (Oliver). Orchestra: Fantasy, Aïda (Verdi).
10.30—Epilogue.

REGIONAL

	kc/s	m.	kW.
London:	842	356.3	50
Midland:	752	398.9	25
Northern:	626	479.2	50

3.0 *p.m.* (London and Northern)—Matinée Concert. The City of Birmingham Orchestra. Conductor, Leslie Heward. Frank Mullings (Tenor). From The New Shakespeare Memorial Theatre, Stratford-upon-Avon (Daventry National Programme).
3.0 (Midland)—The Birmingham Military Band. Conducted by W. Arthur Clarke. John Williams (Bass). Norris Stanley (Violin).
4.0 (London)—The Wireless Military Band. Conductor, B. Walton O'Donnell. Norman Williams (Baritone).
4.0 (Northern)—The Studio Orchestra, directed by John Bridge. Overture, Edmont (Beethoven). Entr'acte, La Colombe (Gounod). Jennie Bleasdale (Soprano): Hark, hark, the Lark, Cradle Song, and Wild Rose (Schubert). The Almond Tree (Schumann). Orchestra: Selection, Gounod's Melodies (arr. Urbach). Jennie Bleasdale: When Celia sings (Frank Moir). Bid me discourse (Bishop). Orchestra: March (Algerian Suite) (Saint-Saëns).
4.30 (Midland)—The Music of Liszt. A Recital by Arthur Roberts (Pianoforte).
5.0—5.30—"Travellers from the East"—II. Mr. Peter Fleming.
7.55—A Religious Service for the Industrial Christian Fellowship, relayed from York Minster.
8.45—Daventry National Programme.
8.50—General News Bulletin.
9.5—Sunday Orchestral Concerts. Aubrey Brain (Horn). The B.B.C. Orchestra (Section D) (Leader, Arthur Catterall). Conductor, Adrian Boult. Orchestra: Overture, Rosamunde (Schubert). Serenade, Eine Kleine Nachtmusik (Mozart). Aubrey Brain and Orchestra: Horn Concerto in E Flat (Strauss). Orchestra: Symphony, No. 4, in D Minor (Schumann).
10.30—Epilogue.

The Frequencies and Wavelengths given in the following programmes are those published by the stations in question. For more accurate measurements, readers are referred to our Table of Frequencies and Wavelengths.

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)

825.3 kc/s (363.3 m.); 13 kW.
Transmits at intervals from 11.30 a.m.
7.0 *p.m.*—Instrumental Ensembles. 7.15—Concert of Dance Music. 7.45—Chansonnettes. 8.0—Request Concert by the Station Orchestra. 10.0 (approx.)—Close Down.

BARCELONA (Spain)

Radio-Barcelona (EAJ1). 860 kc/s (349 m.); 8 kW.
8.30–9.45 *a.m.*—Topical Review. 12 *noon*—Chimes and Weather Forecast. 12.15 *p.m.*—Concert by the Municipal Band, conducted by Lamote de Grignon, relayed from the Palacio de Bellas Artes 2.0—Light Music on Gramophone Records. 2.30—Concert by the Station Sextet. 3.0—Theatre Notes, Popular Music on Gramophone Records and Cinema Review. 3.20—Sextet Concert (contd.). 4.0—Programme for Hospitals and Benevolent Institutions, with Gramophone Records. 5.0–6.30—Interval. 6.30—Popular Music on Gramophone Records. 7.0—Concert by the Station Orchestra. 7.30—Song Recital by Jeronimo Portavella (Tenor). 8.0—Agricultural Talk. 8.10—Song Recital by Concepcion Callao, with the collaboration of the Station Orchestra. 9.0—Dance Music by the "Melody Boys" from the Excelsior Dance Hall. 10.0—Request Concert of Gramophone Records. 11.45—Chess Lesson. 12 *midnight* (approx.)—Close Down.

BELGRADE (Yugoslavia)

697 kc/s (430.4 m.); 2.5 kW.
Transmits at intervals from 8.55 a.m.
5.0 *p.m.*—Dance Music by the Sadzo Orchestra. 6.55—Programme Announcements, followed by Light Music on Gramophone Records. 7.20—'Cello Recital by Herr Aleksandar Slatin. 8.0—Sports Notes. 8.10—Orchestral Concert of Spring Music. 8.50—Talk. 9.20—Symphony Concert from the Works of Reisser, by the Royal Guards' Band. Soloist: Maria Zaludova (Vocalist). In the interval at 10.0 (approx.)—News and Sports Notes. 11.0 (approx.)—Dance Music from the "Ruski Car" Restaurant.

BERLIN (Germany)

Königs Wusterhausen. 183.5 kc/s (1,635 m.); 60 kW.
Transmits at intervals from 6.45 a.m. (*Witzleben* Relay).
11.30 *a.m.*—3.15 *p.m.*—See *Berlin* (*Witzleben*). 3.15—Talk: The Pathos of Sentimentality—the Eighteenth Century. 3.35—Talk: Langbehn, on the Twenty-Fifth Anniversary of the Author's Death. 3.55—Reading (Max Mell). 4.10—See Berlin (*Witzleben*). 5.50—The Younger Generation speaks—a Discussion on Philosophy.
7.0 till Close Down—See *Berlin* (*Witzleben*).

BERLIN (Germany)

Witzleben. 715 kc/s (419.5 m.); 1.5 kW.
Transmits at intervals from 6.45 a.m. (Gymnastics and Hamburg Relay).
11.30 *a.m.*—See Leipzig. 12.10 *p.m.* Reading of Lyrics. 12.20—Concert from *Breslau*. 2.15—Talk for Parents: The First School Year. 2.45—See *Stuttgart*. 3.15—Robert Schumann Recital—"Spanisches Liederspiel"—a Song Cycle for Soprano, Contralto, Tenor and Bass. 3.45—Talk: A Meeting with a Siren. 4.10—Concert of Light Music. 6.0—Herbert Schlüter reads his own prose. 6.30—Long-Distance Cycle Race: Berlin—Kottbus—Berlin (on Gramophone Records).
7.0—Concert by the Berlin Wireless Orchestra, conducted by Bruno Seidler-Winkler. Soloists: Adelheid Armhold (Soprano) and Ludwig Hofmann (Bass-Baritone). Concert Suite from "Idomeneo" (Mozart-Busoni). Soprano Solos: (*a*) Aria from "The Creation" (Haydn), (*b*) Aria from "La rencontre imprévue" (Gluck). Overture, "Die Hochzeit des Camacho" (Mendelssohn). Bass-Baritone Solo: The Mirror Aria from "The Tales of Hoffmann" (Offenbach). Albumblatt und Intermezzo (Kaun). Suite in Dance Form (Kienzl). Soprano Solos: (*a*) Aria from "Euryanthe" (Weber). (*b*) Aria from "Il re pastore" (Mozart), with Violin obbligato. Scherzo (Pfitzner). Overture, "The Merry Wives of Windsor" (Nicolai). Bass-Baritone Solo from "Don Carlos" (Verdi). La Burla (Six Little Pieces for Orchestra (Weingartner). Bass-Baritone Solo: Drinking Song from "Martha" (Flotow). Ballet Music from "The Queen of Sheba" (Goldmark).
10.0 (approx.)—News, followed by Concert of Light Music by the Steiner Brothers Orchestra. During the intervals: Election Results.

BORDEAUX-LAFAYETTE (France)

(PTT). 986 ck/s (304 m.); 13 kW.
12 *noon*—Programme relayed from *Paris* (*Ecole Supérieure*), 671 kc/s (447.1 m.). 2.0 *p.m.*—Relay from *Paris* or Relay of a Local Festival. 6.20—Sports Results. 6.30—Radio Journal. 8.0—Review by M. Salomon. 8.10—Lottery Results. 8.30—Sponsored Concert.
9.0—"*The Professions in Music*"—*Concert on Gramophone Records.* Le brave petit Tailleur (May). Le petit Patissier (Raymond). L'Amoureux Jardinier (Chaminade). Meunier, tu dors (Raiter). Charbonniers et fariniers (Offenbach). Mon frère est bruiteur (Amberg-Bernhauer). Selection (Hollaender). The Racing Cyclist (Paddy). The Last Postilion (Geisser). The Silent Washerwoman (Geisser). At the Photographer's (Manse). Selection from "Les Braconniers" (Offenbach). Chez le notaire (Bach-Laverne). L'enclume (Borel-Clerc). Selection from "The Barber of Seville" (Rossini). Sailors' March (Martin). Les Pipelettes (Marc Hély-Camus). Les Gendarmes à pied (Bach-Laverne). Mon Bureau (Desprez). Le Clown (Daniderff). The Peanut Vendor (Simons). After the Concert, Bordeaux Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)

1,076 kc/s (279 m.); 14 kW.

Transmits at intervals from 7.30 a.m. 6.45 *p.m.*—See *Prague*. 6.50—Light Music on Gramophone Records. 7.0—See *Prague*. 7.40—"Die Fledermaus"—Operetta (Johann Strauss). 10.0—See *Prague*. 10.15—Programme Announcements and Theatre Guide. 10.20—See *Prague*.

BRESLAU (Germany)

923 kc/s (325 m.); 1.5 kW. Relayed by *Gleiwitz*, 1,184 kc/s (253 m.).
Transmits at intervals from 7.0 a.m. (Hamburg Relay).
11.30 a.m.—See Leipzig.
12.15 *p.m.*—*Concert by the Silesian Philharmonic Orchestra*, conducted by Franz Marszalek. Military March (Kaun). Overture, "Jean de Paris" (Boieldieu). Three Selections from "Sigurd Jorsalfar" (Grieg). Finale from "Das Blumenwunder" (Künneke). Overture, "A Waltz Dream" (Oscar Straus). Waltz, Frühlingskinder (Waldteufel). 's kommt ein Vogel geflogen—a German Folk Song in the Style of Old and New Composers (Ochs). Selections from "Die Kaiserin" (Fall).
2.0—News Bulletin. 2.10—The Rhymed Unrhymed, by Traugott Conrad. 2.25—Agricultural Talk. 2.40—Talk: Bathers' Contests. 3.30—Talk in Opera. 3.50—Talk on Ireland. 4.15—Concert of Mandoline and Guitar Music. 5.0—Hans Friedrich Blunck reads from his "New Ballads." 5.40—Violin Recital. 6.15—Talk: Guilt and Fate. 6.45—Weather and Sports Notes.
7.0 till Close Down—See *Berlin (Witzleben)*.

BRNO (Czechoslovakia)

878 kc/s (342 m.); 35 kW.
Transmits at intervals from 7.30 a.m. 5.30 *p.m.*—Saxophone Recital. 5.50—Grandmother's Tales. 6.0—Song and Pianoforte Recital of Music by German Composers of Brno. 6.45—See *Prague*. 6.50—Talk: Health. 7.0—"The Sun"—Play in One Act (Rachilde). 7.40—See *Bratislava*. 10.0—See *Prague*. 10.15—Announcements. 10.20—See *Prague*.

BRUSSELS (Belgium) (No. 1)

I.N.R. 590 kc/s (509 m.); 15 kW.
7.0 *a.m.* and at hourly intervals throughout the day—Pigeon Flying Report.
12.15—1.45 *p.m.*—Weather and Variety Music on Gramophone Records. 5.0—Orchestral Concert, conducted by Arthur Meulemans.
6.0—Concert by the Rallye de Ligne Hunting Horn Chorus of Boloeil. 6.15 (In the interval)—The Clowns Bonzo and Sylvia from the Children's Theatre. 7.0—Symphonic Poem, Tamara (Balakirev) on Gramophone Records. 7.15—Religious Address by the Reverend Father Draime. 7.30—Le Journal Parlé.
8.0—"Les Mousquetaires au Couvent"—Operetta (Varney), relayed from the Royal French Opera House, *Antwerp*. In the intervals, Humorous Dialogue and Le Journal Parlé.

BRUSSELS (Belgium) (No. 2)

N.I.R. 887 kc/s (338.2 m.); 15 kW. Programme in Flemish.
12.15—1.45 *p.m.*—Weather and Variety Music on Gramophone Records. 5.0—Concert relayed from the Salle Memline, *Antwerp*. 6.15—Variety Music on Gramophone Records. 7.15—Religious Address by the Reverend Father Van Gestel. 7.30—Music Review.
8.0—Orchestral Concert, conducted by Arthur Meulemans. Soloist: M. Broos (Viola d'amore). Overture, "Euryanthe" (Weber). Danse macabre (Saint-Saëns). Adagio for Strings (Lekeu). Sonata No. 2 for Viola d'amore (Ariosti). Waltz, Wiener Bonbons (Johann Strauss). 8.45—Recitations. 9.0—*Concert (continued)*. Marche joyeuse (Chabrier). Dances from "Prince Igor" (Borodin). Minuet from La Sonatina (Ravel). Salut d'amour (Elgar). La Feria (Albéniz) Viola d'amore Solos: (*a*) Andante and Minuet (Melandre), (*b*) Plaisir d'amour (Martini). Suite, Roma (Bizet). 10.0—Le Journal Parlé.

BUCHAREST (Romania)

Radio-Bucarest. 761 kc/s (394 m.); 12 kW.
10.0 *a.m.*—Symphony Concert of Romanian Music. 12 *noon*—Light Music on Gramophone Records. 12.45 *p.m.*—News and Time Signal. 1.0—Popular Music on Gramophone Records. 4.0—Programme for Peasants.
5.0—Light Music and Romanian Music by the Jean Marco Orchestra. 6.0—News and Time Signal. 6.10—Concert by the Jean Marco Orchestra (contd.). 7.0—Talks on Health and Education. 7.40—Light Music on Gramophone Records.
8.0—*Concert by the Station Orchestra*, Overture, "The Force of Destiny" (Verdi). Intermezzo from "L'Amico Fritz" (Mascagni). Ratcliff's Dream from "William Ratcliff" (Mascagni). Spanish Suite (Albeniz). French Military March (Saint-Saëns).
9.0—Talk (to be announced). 9.15—Romanian Music by the Luca Orchestra. 10.0—Answers to Correspondents. 10.15—News Bulletin.

BUDAPEST (Hungary)

545 kc/s (550 m.); 18.5 kW.
Transmits at intervals from 9.0 a.m. Also relayed on 210 metres from 3.0—3.45 *p.m.*, and from 5.0 *p.m.*—12 *midnight*.
11.0 *a.m.*—Service from the Church of the Sacred Heart, followed by Orchestral Concert with Violin Solos. 2.0—Gramophone Concert of Operatic Music by Puccini. 3.0—Agricultural Talk. 3.45—Trio Concert of Hungarian Music and Talk. 5.0—Recital of Sacred Songs of the Sixteenth Century, for Male Voice Quartet, with Introductory Talk. 5.50—Military Band Concert. 7.20—Programme by Oscar Glatz.
8.0—"A Good-for-Nothing"—Operetta (Geza Marthon), conducted by the Composer. After the Operetta: Cigány Concert from the Kovacsevics Restaurant.

COPENHAGEN (Denmark)

1,067 kc/s (281 m.); 0.75 kW. Relayed by *Kalundborg*, 260 kc/s (1,153 m.).
8.30 *a.m.*—Morning Gymnastics. 10.0—Divine Service Relay. 12.30—Weather Forecast. 11.45—News Bulletin. 12 *noon*—Time and Chimes from the Town Hall. 12.2 *p.m.* (from the *Axelborg* Studio)—*Orchestral Concert*, conducted by Emil Reesen. Overture, "The Caliph of Bagdad" (Boieldieu). Children's Symphony (Haydn). Carnaval des Animaux (Saint-Saëns). Suite, Jeux d'enfants (Bizet).
1.0—*Talk in English*: British Statesmen of Yesterday and To-day—Gladstone. 1.20—Talk in German: The German Reich 1878–1890—the Struggle against Socialism. 1.40—Talk in French: The Legend of the Town of Is. 2.0—Gramophone Records of Light Music. 2.30—Programme for Children. 3.0—Accordion Duets.
3.25 (from the Axelborg Studio)—Twenty-Seventh Popular Concert by the Station Orchestra, conducted by Emil Reesen. Soloist: Tenna Frederiksen Kraft (Vocalist). Polonaise from "Eugen Onegin" (Tchaikovsky). Waltz, España (Waldteufel). Norwegian Dance, No. 2, in A Major (Grieg). Variations on a Schubert Theme (Reesen). Danish Songs. Selections (Lumbye): (*a*) Torch Dance (*b*) Waltz, Amelia, (*c*) Concert Polka for Two Violins, (*d*) Dream Pictures, (*e*) Gallop, Champagne.
5.0—Divine Service from the Garrison Church. 6.20—Talk. 6.50—Weather Forecast. 7.0—News Bulletin. 7.15—Time Signal. 7.17—Sports Notes. 7.30—Talk on Democracy. 8.0—Town Hall Chimes.
8.2—"*The Hansen Family*"—a Humorous Episode (Jens Locher). 8.15—Orchestral Concert, conducted by Launy Grondhahl. 8.50—Danish Song Recital from the Works of Aage Nording. 9.10—Orchestral Concert (continued). 9.40—Alfred Kjerulf reads from his own Works. 10.0—Sonatina in D Major, Op. 137, for Violin and Pianoforte (Schubert) by Mogens Hansen and Folmer Jensen.
10.15—News Bulletin. 10.25—Orchestral Concert (continued). 11.0—Dance Music from the Wivex Restaurant. In the interval at 12 *midnight*—Time and Chimes from the Town Hall. 12.30 *a.m.* (*Monday*)—Close Down.

CRACOW (Poland)

959 kc/s (312.8 m.); 1.5 kW.
Transmits at intervals from 10.0 a.m.
5.45 *p.m.*—See *Warsaw*. 7.0—Miscellaneous Items and Announcements. 7.40—Programme Announcements. 7.45—See *Lwów*. 8.15—See *Warsaw*. 11.0—Light Music and Dance Music. 12 *midnight* (approx.)—Close Down.

DUBLIN (Ireland)

(2RN). 725 kc/s (413 m.); 1.2 kW. Relayed by *Cork*, 1,337 kc/s (224.4 m.).
8.30 *p.m.*—Time Signal. 8.31—Annie Fagan's Ladies Orchestra. 8.45—Soprano Solos by Mme. Anna Heffernan. 9.0—Talk with Illustrations by Gerard Crofts (Tenor). 9.30—Orchestral Music. 9.45—Review presented by Eva Brennan and Company. 10.15—Pipes and Fiddle Selections. 10.35—Orchestral Selections. 11.0—Time Signal, News, Weather Forecast and Close Down.

FÉCAMP (France)

Radio Normandie. 1,364 kc/s (219.9 m.); 10 kW.
12 *noon*—Variety Music on Gramophone Records. 12.30 *p.m.*—News Bulletin. 12.45—Variety Concert. 6.0—Popular Concert. 8.0—Wireless Notes. 8.15—Classical Concert. 9.0—12.30 *a.m.* (*Monday*)—Variety Concert. 12.30—3.0—Dance Music. 3.0 (approx.)—Close Down.

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.5 kW. Relayed by Cassel, 1,220 kc/s (246 m.). Transmits at intervals from 7.0 a.m. (Hamburg Relay).
9.20 *a.m.*—Choral Concert—Well-known Melodies in New Arrangements. 10.20—An Introduction to the Second Act of "The Twilight of the Gods" by Hans Rosbaud and the Radio Orchestra.
11.30—See Leipzig. 12.10 *p.m.*—Vocal and Instrumental Concert. 1.0—Concert of Variety Music. 2.0—Talks arranged by the Wiesbaden Board of Agriculture. 2.10—Rural Programme—Two Talks. 3.0—Programme for Young People: A Punch and Judy Show.
4.0—See *Stuttgart*. 6.0—René Schickele Lyrics, with a Foreword by the Author. 6.15—Talk and Reading: The Franciscan Literature in the Twelfth and Thirteenth Centuries. 6.45—Weather and Sports Notes.
7.0 till Close Down—See *Berlin (Witzleben)*.

HAMBURG (Germany)

Norag (ha, in Morse). 806 kc/s (372 m.); 1.5 kW. Relayed by

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Bremen, 1,112 kc/s (270 m.); *Flensburg*, 1,373 kc/s (218 m.); *Hanover*, 530 kc/s (566 m.) and *Kiel*, 1,292 kc/s (232.2 m.).
Transmits at intervals from **7.0** a.m. **(Hamburg Harbour Concert).**
11.30 a.m.—See Leipzig. 12.10 *p.m.* —Time and Weather. 12.15—Concert from the Deutsche Haus, *Flensburg*. 2.0 "Workers"— Songs and Recitations. 2.45—Chorals in North German Dialect. 3.0—Violin Recital of Folk Melodies. 3.30—"*The Journey into the Land of Health*"—A Radio Play for Mothers and Children (Josef Steck). 4.30—Thé Dansant. 5.30—Reading: "Count Mark and the Princess of Nassau-Usingen" (Ricarda Huch). 6.0—Recital of Old Danish Ballads and Romances with Explanatory Notes.
6.45 (from *Bremen*)—Recital of New Chamber Music for Instruments. 7.30—Talk on Swimming. 7.40—Sports Notes. 7.55—Weather Report.
8.0 — Richard Wagner Concert by the Philharmonic Orchestra, conducted by Richard Richter. Overture, "The Flying Dutchman" Albumblatt for Violin and Orchestra. Bacchanal and Venusberg from "Tannhäuser." Selections from "Lohengrin." Overture, "Rienzi." Funeral March from "The Twilight of the Gods." Introduction to the Third Act and Dance of the Apprentices from "The Mastersingers." The Ride of the Valkyries. News in an interval.
10.0—News Bulletin. 10.10—Topical Talk. 10.20—Dance Music from the Boccaccio. 11.10 (from *Bremen*)—Dance Music from the Astoria.

HEILSBERG (Germany)

1,085 kc/s (276.5 m.); 60 kW. Relayed by *Danzig*, 662 kc/s (453.2 m.).
Transmits at intervals from 6.30 a.m.
11.30 a.m.—See Leipzig.
12.15 *a.m.—Concert by the Königsberg Opera House Orchestra*, conducted by Werner Franz. Overture, "Hans Heiling" (Marschner). A la Mazurka (Gernsheim). Suite of Bohemian Dances (Ruzek). Selection from "Schwanda the Piper" (Weinberger). Prelude to "Sein Lied" (Kuno Stierlin). Salut d'amour (Elgar). Waltz, Wiener Blut (Johann Strauss). Czardas from "Der Geist des Wojewoden" (Grossmann). Une Fête à Aranjuez (Demerssemann).
2.15—Programme for Children—Tigers in Sumatra. 2.45—See *Stuttgart*. 3.15—Talk: Breathing—a Simple Way to Health. 3.45—Experiences with Animals. 4.0—Elsa Koch Song Recital. 4.25—Concert from *Berlin* (*Witzleben*). Sports Notes in the interval. 6.0—Karl Kinndt reads Poems and Grotesques. 6.30—Talk: Moltke. 7.0 till Close Down—See *Berlin* (*Witzleben*).

HILVERSUM (Holland)

1,004 kc/s (298.8 m.); 8.5 kW.
8.55 *a.m.*—12.40 *p.m.*—Programme of the Workers' Radio Society (V.A.R.A.).
8.55 *a.m.*—Physical Culture. 9.10—Lesson in Esperanto. 9.35—Football Report. 9.40—Pigeon Flying Report. 9.45—Talk on Horticulture.
10.10—*Orchestral Concert*, conducted by Hugo de Groot. Overture, "Titus" (Mozart). Fifth Symphony in B Flat Major (Schubert). Recitations. Concerto for Viola da Gamba and Orchestra (Tartini). Suite, Deutsches Rokoko (Günther). 11.40—Address by G. J. Zwertbroek. 12 *noon—Concert* (*contd.*)—Overture, "Le Maschere" (Mascagni). Suite for Viola, String Quartet and Pianoforte (Turina). Suite, Jeux d'enfants (Bizet).
12.40—5.40 *p.m.*—Programme of the Algemeene Vereeniging Radio Omroep (A.V.R.O.). 12.40 *p.m.*—Time Signal.
12.41—*Concert by the Wireless Chamber Orchestra*, conducted by Louis Schmidt. Overture, "Der Opernball" (Heuberger). Ballet égyptien (Luigini). Serenata (Tarenghi). Albumblatt (Wagner). Gramophone Records of Light Music. Selection from "The Magic Flute" (Mozart). Waltz, Estudiantina (Waldteufel). Gramophone Records of Light Music. Hungarian Dances Nos. 1 and 2 (Brahms). Serenade (Toselli). Waltz, Delirien (Jos. Strauss). Russian Folk Song (Bernhards). 2.40—Weekly Book Talk.
3.10—Concert by the Concertgebouw Chamber Orchestra, conducted by Albert van Raalte. Soloist: Henk van Wezel ('Cello). Sinfonia (Leonardo Leo). Concerto for 'Cello and Orchestra (Leo). Symphony (Haydn). Gramophone Records of Light Music. Three Viennese Dances (Beethoven). Divertimento in D Major (Mozart).
4.40—Talk. 5.10—Talk on Sports, followed by Popular Music on Gramophone Records.
5.40—6.40—Programme for Children. arranged by the V.A.R.A.
6.40—8.40—Programme of the Liberal Protestant Radio Society (V.P.R.O.). 6.40—Literary Talk. 7.10—Religious Programme.
8.40 till Close Down.—A.V.R.O. Programme. 8.40—Time Signal.
8.41—Sports Results and News.
8.55—Orchestral Concert of Musical Comedy Music, conducted by Nico Treep. Soloists: Grethe Weijnschenk-Hogenbirk (Soprano) and Henk Viskil (Tenor). 9.40—International Songs.
10.0—*Concert by the Wireless Orchestra*, conducted by Nico Treep. Soloist: Ferdinand Helmann (Violin). Overture, "Euryanthe" (Weber). Concerto in G Minor for Violin (Bruch).
10.40—Felix Timmermans reads from his own Works. 11.0—Concert by Kovacs Lajos and his Orchestra and Bob Scholte (Vocalist). In the interval, "The Rhythm Brothers." 12.40 *a.m.* (*Monday*)—Close Down.

HUIZEN (Holland)

160 kc/s (1,875 m.); 8.5 kW.
9.10—10.10 *a.m.*—Religious Programme by the Catholic Radio Society (K.R.O.). 10.10—11.55—Programme of the Christian Radio Society (N.C.R.V.).
10.10—*Organ Recital*, by P. Anes. Two Chorals (Bach): (*a*) Herzlich tut mich verlangen, (*b*) Jesu meine Freude. Andante quasi allegretto in E (Schravesande). Chant élégiaque in F Minor (Guilmant). 10.20—Divine Service from the Reformed Church, *Leyden*, followed by *Organ Recital* (*continued*). Sonata in E Flat Major (Volckmar). Choral, Wie schön leuchtet der Morgenstern (Buxtehude).
12.55 *p.m.*—5.40—K.R.O. Programme.
12.55—*Sextet Concert*, conducted by Piet Lustenhouwer. March, Das ist der Tambour! (Ascher). Military Fanfare (Ascher). Waltz, Klänge aus Wien (Döring). Pizzicati (Stabel). Selection from "Martha" (Flotow). Sag' mir Darling (Reisfeld). Potpourri, Um das blaue Band (Krome). Will Dir die Welt zu Füssen legen (Abraham). Comedy Overture (Kéler-Bela). Ich werde kommen (Erwin-Strauss). Heut' ist heut' (Landauer).
2.25—Talk by J. Vriends. 2.50—Literary Talk.
3.10—*Orchestral Concert*, conducted by Johan Gerritsen. Overture, "Athalia" (Mendelssohn). Melody (Rubinstein). Ballet Music from "Feramors" (Rubinstein). Overture, "La Belle Hélène" (Offenbach). Selection from "Hamlet" (Thomas). Waltz, Künstlerleben (Johann Strauss). Serenade (Haydn). Potpourri, With Song and Wine (Armandola).
5.10—Programme for Invalids.
5.40—8.25—N.C.R.V. Programme.
5.40—Sacred Music on Gramophone Records. 6.0—Divine Service, relayed from *Doorn*. After the Service, Sacred Music on Gramophone Records.
8.25 till Close Down—K.R.O. Programme. 8.25—Talk: Civilisation and Christianity. 8.50—Football Results.
8.55—"Jerusalem"—Oratorio (Winnubst). The Utrecht Municipal Orchestra and the "Roomsch Katholiek Koorcomité" Choir, conducted by the Composer. Soloists: Jo Hendrichs-Zalsman (Soprano), Victoria Binnendijk (Contralto), Louis van Tulder (Tenor) and Jac. Caro (Bass). News in the interval. 11.20—Epilogue by the Choir. 11.40 (approx.)—Close Down.

KALUNDBORG (Denmark)

Kalundborg Radio. 260 kc/s (1,153 m.); 7.5 kW.
See *Copenhagen*.

KATOWICE (Poland)

734 kc/s (408 m.); 16 kW.
Transmits at intervals from 10.0 a.m. 5.45 *p.m.*—Orchestral Concert. 8.15—Popular Concert. 10.10—Pianoforte Recital by Sophie Jaroszewicz. 11.0—Dance Music.

LAHTI (Finland)

167 kc/s (1,796 m.); 54 kW. Relayed by *Helsinki*, 815 kc/s (368.1 m.).

SUNDAY continued

Transmits at intervals from 7.45 a.m. 6.40 *p.m.*—Concert by the Station Orchestra. 7.0—Talk (to be announced). 7.20—Song Recital by Pia Ravenna. 7.45—Dramatic Programme. 8.5—Popular Concert by the Station Orchestra. 8.45—News Bulletin. 9.0—News Bulletin in Swedish, and Close Down.

LANGENBERG (Germany)

Westdeutscher Rundfunk. 635 kc/s (473 m.); 60 kW.
Transmits at intervals from **7.0 a.m. (Hamburg Harbour Concert).**
11.30 a.m.—See Leipzig. 12.10 *p.m.* —Talk: Regulations relating to Working Hours. 12.30—Talk: The Music of the Week. 12.40—Reading: "Die kalte Seele" (Gabele). 1.0—Orchestral Concert, conducted by Eysoldt. 2.30—Shorthand Lesson. 2.50—Talk: Towns of the Rhineland and Westphalia — Huckeswagen. 3.35—Agricultural Talk.
4.0—*Orchestral Concert*, conducted by Kühn. Soloist: Egbert Grape (Pianoforte). Overture, "Idomeneus" (Mozart). Concert-Rondo for Pianoforte and Orchestra (Mozart). Three Pieces from the Ballet Music to "Prometheus" (Beethoven). Symphonic Poem, Auf der Wartburg (Bungert). Overture, The Rhine (Kaun).
5.15—An Entertainment. 6.0—"Musical Memories of German Cathedrals"—a Gramophone Report by Herr Marschall. 6.50—Sports Notes.
7.0—See Berlin (Witzleben)
10.0—News, followed by Concert and Election Results from *Berlin* (*Witzleben*).

LEIPZIG (Germany)

1,157 kc/s (259 m.); 2 kW. Relayed by *Dresden*, 941 kc/s (319 m.).
Transmits at intervals from 6.45 a.m.
11.30 a.m.—"Wo Gehest du hin?" —Cantata (Bach) by the Municipal and Gewandhaus Orchestras, the Choir of St. Thomas' and Soloists.
12.15 *p.m.—Concert by the Altenburg Landestheater Orchestra* conducted by Dr. Georg Göhler. Soloists: Elsa Schumann (Soprano), Alfred Kunze (Violin) and Oswald Hanitzsch ('Cello). Symphony No. 7 in C Major (Haydn). Adagio from the Violin Concerto in G Major (Mozart). Ballet Music from "Les Petits Riens" (Mozart): (*a*) Gavotte in F Major, (*b*) Gavotte in B Flat Major, (*c*) Adagio, (*d*) Pantomime. Three Old German Minnelieder for Soprano and Orchestra: (*a*) Minnelied Margarethens von Oesterreich, (*b*) Blumenhaus, (*c*) Es fleugt ein kleines Waldvögelein. Three Selections from the Suite "Fest auf dem Lande," in G Major (Georg Göhler). Overture, "Ten Maids and No Man" (Suppé).
2.0—Weather, Time and Agricultural Notes. 2.10—Relay of Part of the D.H.V. Vocational Competitions in Saxony, with Introductory Talk. 2.30—Pianoforte Quintet in F Minor, Op. 26 (Fritz von Bose). 3.0—"*Altenburg*"—a Radio Sequence (Dr. Martin Kunath).
4.0—"Friedemann Bach"—Opera in Three Acts (Paul Graener). relayed from the Landestheater, *Altenburg*. 6.0—Sports Reports on Gramophone Records. *Part I.* Relay from *Stuttgart*. *Part II.* Part Relay of the Football Match Lower Austria v. Central Germany, in *Dresden*. 6.30—"Cotton and Petroleum"—Extracts from the Latest Novels of Bruno Traven. 7.0 till Close Down—See *Berlin* (*Witzleben*).

LJUBLJANA (Yugoslavia)

522 kc/s (574.7 m.); 2.5 kW.
Transmits at intervals from 9.0 a.m. 4.15 *p.m.*—Humorous Programme. 4.30—Musical Programme. 5.0—Dramatic Programme. 8.0—Instrumental and Vocal Concert. 9.0—Quintet Concert. 10.0—Time Signal and News Bulletin. 10.15—Light Music.

LWÓW (Poland)

788 kc/s (381 m.); 16 kW.
Transmits at intervals from 10.0 a.m. 7.0 *p.m.*—Miscellaneous Items. 7.25—Reading. 7.45—"*How our Ancestors loved*"—Play (Leopold Kielanovsky and Marja Grzedzielska). 8.15—See *Warsaw*. 10.55—Sports Report. 11.0—See *Warsaw*. 12 *midnight* (approx.)—Close Down.

LYONS (France)

La Doua (PTT). 644 kc/s (465.8 m.); 1.5 kW.
8.0 *a.m.*—Review of the Paris Morning Press, relayed from *Paris* (*Ecole Supérieure*), 671 kc/s (447.1 m.). 12 *noon*—Relay from *Paris* (*Ecole Supérieure*). 2.30 *p.m.*—Concert. 5.0—Choral Concert of Old Songs. 7.15—Sports Notes. 8.0—Concert from *Paris* (*Ecole Supérieure*).

MADRID (Spain)

Union Radio (EAJ7). 707 kc/s (424.3 m.); 2 kW.
Transmits at intervals from 9.0 a.m. 9.0—10.30 *a.m.*—Topical Review. 3.0—4.30 *p.m.*—Chimes, Time, Theatre Notes and Variety Concert. 8.0—9.30—Chimes and Request Gramophone Concert.
10.30—Chimes, Time and Song Recital followed by Violin Recital and Russian Song Recital by José Angerri (Baritone). 1.0 *a.m.* (*Monday*)—Chimes and Close Down.

MILAN (Italy)

Ente Italiano Audizioni Radiofoniche. 905 kc/s (331.5 m.); 7 kW.
See *Turin*.

MORAVSKÁ-OSTRAVA (Czechoslovakia)

1,137 kc/s (263.8 m.); 11 kW.
Transmits at intervals from 7.30 a.m. 7.0 *p.m.*—See *Brno*. 7.40—See *Bratislava*. 10.0—See *Prague*. 10.15—Programme Announcements and Theatre Guide. 10.20—See *Prague*.

MOSCOW (Russia)

Trades Union. 230.1 kc/s (1,304 m.); 100 kW.
Transmits at intervals from 5.0 a.m. 9.0 *a.m.*—Proletariat Journal. 9.55—Time Signal. 10.0—Concert for Workers, from the Works of Schubert, Glinka and Grieg. 11.0—Agricultural Programme. 12 *noon*—Literary Programme. 1.0 *p.m.*—Educational Programme. 2.0—Programme for Children. 2.45—Weather Report. 3.0—Agricultural Programme. 3.55—6.0—Interval. 6.0—Programme to be announced. 6.30—Literary Programme. 7.0—Technical Talk. 7.30—Programme to be announced.
8.0—Talks in German and *English*: Soviet Russia's Foreign Policy. 9.55—Chimes and Close Down.

MUNICH (Germany)

563 kc/s (533 m.); 1.5 kW. Relayed by *Augsburg* and *Kaiserslautern*, 536 kc/s (560 m.); and *Nürnberg*, 1,256 kc/s (239 m.).
10.0 a.m.—**Organ Recital**, from the Works of Bach. 10.45—Chimes from Our Lady's Church. 11.0—Chamber Music by the Berber Quartet.
11.35—**Hugo Wolf Programme**, relayed from the Residence Theatre: Songs and an Opera Fragment. 1.5 *p.m.*—Time, Weather and Programme Announcements. 1.15—Agricultural Talk. 1.35—Gramophone Concert of Variety Music. 2.30—Elementary Chess Lesson. 3.15—Programme for Children.
3.55—Songs from the Works of Dietrich Amende, by Irma Drummes (Contralto), with the Composer at the Pianoforte. 4.10—How? Why?—a Guessing Competition. 4.30—Concert from *Stuttgart*. 6.0—Palatinate Programme.
6.20 till Close Down—At intervals during the Programmes, Announcements of Election Results in Bavaria, Prussia, Würrtemberg and Hamburg. 6.20—Gramophone Records of Variety Music. 7.0—Orchestral Concert, conducted by Karl List. 10.20 (approx.)—Time, Weather, News and Sports Notes, followed by Orchestral Concert, conducted by Erich Kloss.

OSLO (Norway)

Kringkastingselskapet. 277 kc/s (1,083 m.); 60 kW. Relayed by *Fredriksstad*, 816 kc/s (367.6 m.); *Hamar*, 536 kc/s (560 m.); *Notodden*, 671 kc/s (447.1 m.); *Porsgrund*, 662 kc/s (453.2 m.); and *Rjukan*, 671 kc/s (447.1 m.).
10.20 *a.m.*—Chimes and Divine Service Relay. 4.0—Orchestral Concert, conducted by Hugo Kramm.
5.0—Björnson Programme, relayed from Sarpsborg: Choral and Soloist Concert and Talk in memory of Björnson. 6.30—Talk: The History of Manufactures. 7.0—Parliamentary Review. 7.15—Weather and News. 7.30—Talk on the following Transmission.
8.0—"Das Lied von der Glocke—for Choir, Soloists and Orchestra (Max Bruch), relayed from *Moss*. 10.0—Weather and News. 10.15—Topical Talk. 10.30—Gramophone Dance Music. 12 *midnight* (approx.)—Close Down.

PALERMO (Italy)

Ente Italiano Audizioni Radiofoniche. 554 kc/s (542 m.); 3 kW.
Transmits at intervals from 10.40 a.m. 5.30—6.30 *p.m.*—Dance Music and Light Music relayed from the Olympia Tea-Room. Sports Notes in the interval. 8.0—Announcements and Giornale Radio. 8.20—Sports Notes. 8.25—Light Music on Gramophone Records. 8.30—Time Signal and News Bulletin.
8.45—Variety Concert: Sketches and Musical Programme. 10.55—News and Close Down.

PARIS (France)

Eiffel Tower (FLE). 207.5 kc/s (1,445.7 m.); 13 kW. Time Signals (on 2,650 m.) at 10.26 a.m. and 11.26 p.m. (preliminary and 6-dot signals).
1.0 *p.m.*—News Bulletin. 1.10—Weather Report. 1.20—Symphony Concert, conducted by Edouard Flament. 6.45—Le Journal Parlé. 7.45—Programme for Children. 8.20—Weather. 8.30—Variety Music on Gramophone Records.

PARIS (France)

Poste Parisien. 914 kc/s (328.2 m.); 1.2 kW.
12 *noon*—Gramophone Records and News. 12.15 *p.m.*—Gramophone Records of Popular Music. 1.45—News Bulletin. 2.0—6.45—Interval.
6.45—News and Announcements. 7.0—Light Music on Gramophone Records. Talk and News. 7.30—Popular Music on Gramophone Records. 8.30—Gramophone Records. Talk and News.
8.45—*Vocal and Orchestral Concert*. Overture, "Sigurd" (Reyer). Waltz-Fantasia (Glinka). Le Carnaval des Animaux (Saint-Saëns). Dances and March from "Prince Igor" (Borodin). Romance (Rubinstein). Scherzo from "Roma" (Bizet).

PARIS (France)

Radio-Paris (CFR). 174 kc/s (1,725 m.); 75 kW.
7.45 *a.m.*—Light Music on Gramophone Records. 8.0—News, Weather Report and Press Review. 8.30—Physical Culture Lesson. 10.20—Book-keeping Lesson. 10.40—Spanish Lesson. 12 *noon*—Religious Address.
12.20 *p.m.*—*Religious Music*. Prière et Berceuse (Guilmant). Basse et dessus de trompette (Clérambault). Final Variation (Mendelssohn).
12.30—Programme by Bilboquet. 12.45—Press Review, News and Weather. 1.0—Variety Music on Gramophone Records. 1.30—Light Music on Gramophone Records.
3.0—Running Commentary on the Football Final, Cannes v. Roubaix, relayed from the Colombes Stadium. 6.45—7.45—Gramophone Concert of Variety Music. 8.0—Sponsored Programme. 8.30—News, Sports Results, and Weather Report.
8.45 — Radio-Paris Café Concert, conducted by Maurice André, with Soloists. In the interval at 9.15—Press Review and News.

POZNAŃ (Poland)

896 kc/s (335 m.); 1.9 kW.
Transmits at intervals from 10.0 a.m. 6.40 *p.m.*—Light Music on Gramophone Records. 7.0—Miscellaneous Items and Announcements. 7.25—Popular Music on Gramophone Records. 7.45—See *Lwów*. 8.15—10.0—See *Warsaw*.
10.0—Pianoforte Recital by Zofja Jaroszewiczowa. In the intervals: Theatre Guide and Local Announcements. 10.40—Time Signal, Sports Notes and Police Report. 11.0—Dance Music from Café "Esplanade," 12 *midnight* (approx.)—Close Down.

PRAGUE (Czechoslovakia)

614 kc/s (488.6 m.); 120 kW.
Transmits at intervals from 7.30 a.m. 10.30 *a.m.*—Talk for Workers: Alcohol. 10.50—Orchestral Concert, conducted by Scheidler. 12 *noon*—Chimes. 12.5 *p.m.*—Music Review. 1.5—O[illegible]stral Concert, conducted by Je[illegible] 4.0—Concert from *Brno*. 5.30—[illegible] From America to Africa. 5.45[illegible] Music on Gramophon[illegible]ds. 6.0—[illegible]n Transmission: "*The*

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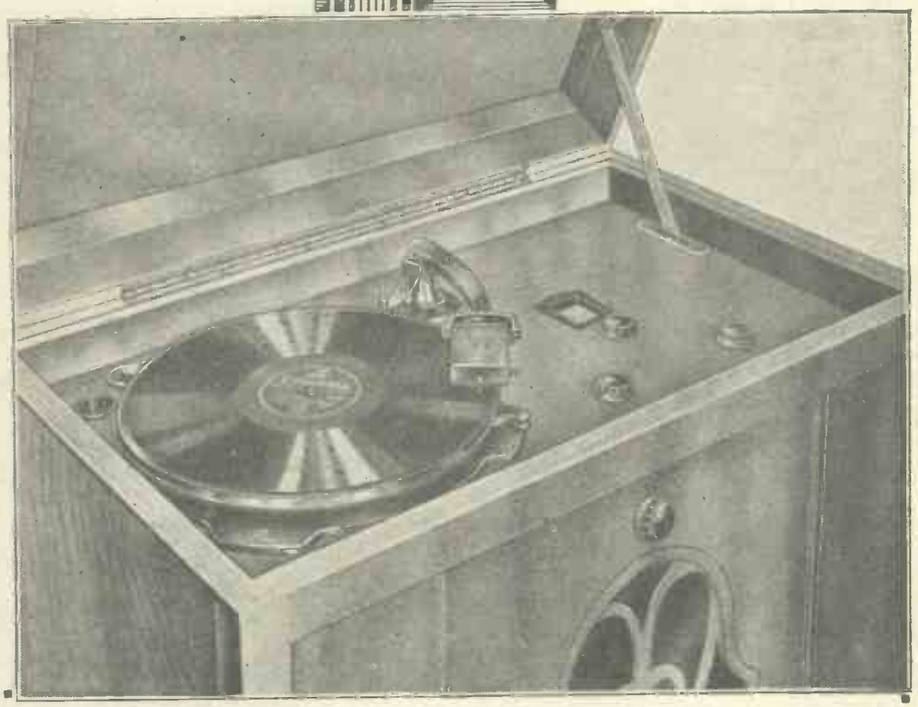

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Apothecary"—Opera (Haydn). 6.45—Sports Notes. 7.0—See *Brno*. 7.40—See *Bratislava*. In the interval at 9.0—Time and News. 10.0—Time and News. 10.15—Miscellaneous Announcements. 10.20—Dance Music on Gramophone Records.

RADIO-SUISSE ROMANDE (SOTTENS) (Switzerland)

743 kc/s (403 m.); 25 kW.; *Lausanne*, 442 kc/s (680 m.); and *Geneva*, 395 kc/s (760 m.).

9.55 *a.m.* (from *Geneva*)—Chimes from St. Peter's Cathedral. 10.0 (from *Geneva*)—Protestant Service. 11.0 (from *Geneva*)—Light Music on Gramophone Records.

12.30 *p.m.*—Weather Forecast and News Bulletin. 12.40—Concert by the Station Orchestra, conducted by Fernand Closset. 2.0—5.30—Interval.

5.30—Concert by the Station Orchestra, conducted by Robert Echenard. 6.30 (from *Geneva*)—Protestant Address. 7.0 (from *Lausanne*)—Popular Music on Gramophone Records. 7.50 (from *Lausanne*)—Sports Notes. 8.0 (from *Payerne*)—Band Concert. 8.40 (from *Lausanne*)—Literary Readings.

9.0—Concert by the Station Orchestra, conducted by Fernand Closset, with the collaboration of Colette Wyss (Vocalist). 10.15—Weather and News Bulletin. 10.30 (approx.)—Close Down.

RIGA (Latvia)

572 kc/s (525 m.); 15 kW.
Transmits at intervals from 10.0 a.m.

5.0 *p.m.*—*English Lesson*. 5.30—Choral Concert by the Dziesmu Vara Students Choir. 6.0—Agricultural Talk. 6.30—Talk on Economics. 7.0—Weather Forecast. 7.5—Recital of Waltzes by the Station Orchestra. 8.0—News Bulletin. 8.20—Soloist Concert. 8.50—Selection from "Carmen" (Bizet), by the Station Orchestra. 9.0—Weather and News Bulletin. 9.15—Selection from "The Merry Widow" (Léhar), by the Station Orchestra. 9.35—Old Dances. 10.0—Modern Dances. 11.0 (approx.)—Close Down.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche (1RO). 680 kc/s (441 m.); 50 kW. Relayed by *Naples*, 941 kc/s (319 m.) and 2RO, 11,810 kc/s (25.4 m.).

9.45 *a.m.*—Agricultural Report. 10.0—Bible Reading. 10.15—Sacred Music. 10.45—Sports Notes and Amusement Guide. 11.0—Seventeenth Canto of the "Paradiso" relayed from the "House of Dante."

12.30 *p.m.*—Concert of Light Music. 1.30—Time and Announcements. 4.15 (from *Naples*)—Programme for Children, Weather and Sports Notes. 4.45—Sports Notes.

5.0—Concert conducted by Bernardino Molinari, relayed from the Augusteo. Maria Egiziana, for Soloists, Choir and Orchestra (Respighi). Farewell Symphony (Haydn).

7.0—Sports Notes and Announcements. 7.30—Gramophone Records of Variety Music. 8.0—Time, News and Gramophone Records of Variety Music. 8.30—Sports Notes.

8.45—Orchestral Concert. Soloists: Lina Spera (Violin), Lea Tumbarello Mulè (Soprano), Guglielmo Castello (Baritone) and Felice Belli and Arturo Dalmonte (Bass). Aragon (Albeniz). Spanish Symphony for Violin and Orchestra (Lalo). Talk. Selections for Soprano, Baritone and Bass from "I Puritani" (Bellini). Talk: The Centenary of Sardou. Selections for Soprano, Tenor, Bass and Baritone from "The Barber of Seville" (Rossini). 10.55—News Bulletin.

SCHENECTADY (U.S.A.)

General Electric Company (WGY). 790 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,530 kc/s (31.48 m.); and by W2XAD on 15,340 kc/s (19.56 m.).
Transmits at intervals from 1.0 p.m.

7.30 *p.m.*—5.0 *a.m.*—*New York* Relay. 7.30 *p.m.*—Moonshine and Honeysuckle. 8.0—Wayne King's Orchestra. 8.30—National Sunday Forum. 9.0—Iodent Programme. 9.15—Musical Programme. 10.30—General Electric Circle. 11.0—Catholic Hour. 11.30—Melody Trail. 12 *midnight*—L'Heure Exquise.

12.15 *a.m.* (*Monday*)—Rexall Radio Party. 12.30—Orchestral Gems. 1.0—Chase and Sanborn Programmes. 2.0—Talk: "Our Government." 2.15—American Album of Familiar Music. 2.45—Buick Revellers. 3.15—Talk: "What would you do?" 3.20—National Oratorio Society Programme. 3.45—Sunday at Seth Parker's. 4.15—Ralph Kirberry (Baritone). 4.30—Jesse Crawford (Organist). 5.0—Larry Funks' Orchestra. 5.30—New Kenmore Orchestra. 6.0 (approx.)—Close Down.

SCHWEIZERISCHER LANDESSENDER (BERO-MÜNSTER) (Switzerland)

653 kc/s (459 m.); 60 kW.; *Basle*, 1,229 kc/s (244.1 m.); and *Berne*, 1,220 kc/s (246 m.).

10.0 *a.m.* (from *Basle*)—Catholic Address. 10.45 (from *Zürich*)—Relay of the Appenzell General Assembly in *Trogen*.

12.28 *p.m.*—Time Signal and Weather Report. 12.30—News Bulletin. 12.40—Concert by the Station Orchestra. 1.45—3.0—Interval. 3.0 (from *Basle*)—Concert by the Brascimann Band. 3.30—Gay Songs and Light Music on Gramophone Records. 4.15 (from *Basle*)—Reading by Hermann Gerig: Oh, these Doctors! 4.45—Dance Music on Gramophone Records. 5.30—Weather Report. 5.35—6.30—Interval. 6.30 (from *Basle*)—Chess Lesson. 7.0—Concert of Cigány Music on Gramophone Records. 7.25—Sports Results. 7.28—Time Signal and Weather Report. 7.30 (from *Basle*)—Talk: History, and History Lessons. 8.0 (from *Berne*)—Concert of Popular Swiss Music by the Station Orchestra, and the Berne Singers.

8.45—"The Music Cure"—One Act Play (Bernhard Shaw).

9.15—Concert of Operetta Music by the Station Orchestra. Soloists: Lucia Delsarta, Mme. Boogarts and Chr. Lertz (Pianoforte). 10.0—Weather Forecast, News and Sports Notes. 10.15 (approx.)—Close Down.

STOCKHOLM (Sweden)

Radiotjänst (SASA). 689 kc/s (436 m.); 55 kW. Relayed by *Boden*, 244 kc/s (1,229.5 m.); *Göteborg*, 932 kc/s (322 m.); *Hörby*, 1,166 kc/s (257 m.); *Motala*, 222.5 kc/s (1,348 m.); *Östersund*, 389 kc/s (770 m.) and *Sundsvall*, 554 kc/s (542 m.).

10.0 *a.m.*—Agricultural Talk for Young People. 10.30—Talk for Workers. 11.0—Divine Service, relayed from *Kristinehamn*, 1,480 kc/s (203 m.).

12.45 *p.m.*—Weather. 12.55—Time Signal. 1.0—Talk in French.

1.20—Relay of the Changing of the Guard from the Royal Palace, with Military Band Music.

3.0—Concert by the Luleå Male Voice Choir, conducted by Wilhelm Thurfjell, relayed from the Cathedral, *Luleå*. Soloists: Anne Marie Florin (Soprano) and Ragnar Lindström (Baritone). 3.45—Talk: Swedish Humorists: Strindberg. 4.15—Programme for Young People, relayed from *Sundsvall*.

5.0—Recital by Pierre Jamet (Harp) and Roman Dukstulsky ('Cello). 5.30—Geographical Talk. 6.0—Divine Service. 7.15—Weather, News and Sports Notes.

7.30—"*Ullabella*"—Radio Play (Stiernstedt).

9.0—Orchestral Concert with Songs by Ragnar Hulten. 9.45—Weather and News. 10.0—Orchestral Concert. 11.0 (approx.)—Close Down.

STRASBOURG (France)

Radio-Strasbourg (PTT). 869 kc/s (345 m.); 11.5 kW.

10.45 *a.m.*—Protestant Service in German, relayed from the Salle Braun, *Metz*. 11.30—Catholic Recital. 12 *noon*—Variety Music on Gramophone Records.

12.45 *p.m.*—News in French and German. 1.0—Time Signal. 1.1—Popular Music on Gramophone Records. 2.0—Agricultural Talk in German. 2.15—Variety Music on Gramophone Records.

2.30—Concert relayed from *Hoerdt*. The Hoerdt Orchestra, conducted by G. Freysz. The "Orphéon" Choral Society of Bischeim, conducted by Ernest Heyler. Soloist: Fritz Stephan. In the intervals, Talks on the Asparagus of Hoerdt. 4.30—Talk for Workers in German. 4.45—Agricultural Talk in French.

5.0—Sacred Concert and Protestant Address, relayed from St. Paul's Church. Soloists: M. Rupp (Organ), M. Roskam ('Cello) and M. Grégoire (Violin). 6.0—Medical Talk in German. 6.15—Sports Notes. 6.20—Sports Talk in French. 6.30—Variety Music on Gramophone Records. 7.30—Time Signal. 7.32—News in French and German. 7.45—Popular Gramophone Music.

8.30—Extracts from "Le Bourgeois Gentilhomme"—Comedy Ballet in Five Acts (Molière). Music by Lully. 10.30—Dance Music from the Savoy. 12 *midnight* (approx.)—Close Down.

STUTTGART (MÜHLACKER) (Germany)

Süddeutscher Rundfunk. 832 kc/s (360.5 m.); 60 kW. Relayed by *Freiburg*. 527 kc/s (570 m.).

Transmits at intervals from 7.0 a.m. (Hamburg Relay).

8.30—9.10 *a.m.*—Choral Concert. 10.0—Catholic Recital. 10.45—See *Schweizerischer Landessender (Beromünster)*. 12.15 *p.m.*—Chamber Music for Pianoforte and Clarinet. 1.0—Topical Talk. 1.15—Prominent Singers—Gramophone Concert. 2.15—Recital of Songs to the Lute. 2.45—Radio Report from the Kickers Sports Ground on the German Forest Race Championships. 3.15—Programme for Young People from *Frankfurt*.

4.0 (from *Pforzheim*)—*Concert by the Pforzheim Symphony Theatre Orchestra*, conducted by Walter Schlageter. Overture, "Il Seraglio" (Mozart). Invitation to the Dance (Weber). Serenade (Moszkovsky). Suite No. 1 from "L'Arlésienne" (Bizet). Overture, "Orpheus in the Underworld" (Offenbach). Waltz, Wiener Zugvögel (Translateur). Selection from "A Waltz Dream" (Oscar Straus). Glow-Worm Idyll from "Lysistrata" (Lincke). Selections from "The Land of Smiles" (Lehár). Gallop from "Halloh, die grosse Revue" (Lincke).

6.0 (from *Freiburg*)—Authors' Programme—Reinhard Goering. 6.25—Talk: Goethe in France. 6.50—Sports Notes. 7.0 till Close Down—See *Berlin (Witzleben)*. In an interval at 10.20—News Bulletin. 2.0 *a.m.* (*Monday*)—Close Down.

TOULOUSE (France)

Radiophonie du Midi. 779 kc/s (385 m.); 8 kW.

12.30 *p.m.*—Catholic Recital. 1.0—Songs from Operetta. 1.15—Orchestral Selections. 1.30—Agricultural Report. 1.45—Protestant Address. 5.0—Picture Transmission. 5.15—Esperanto Lesson. 5.30—Light Music. 5.45—Operetta Selections. 6.0—Military Music. 6.15—Popular Songs. 6.30—News Bulletin. 6.45—Selections from "Les Erynnies" (Massenet). 7.0—Sound Film Music. 7.15—Light Music. 7.30—News and Racing Results. 7.45—Selections by an Argentine Orchestra. 8.0—Operetta Music. 8.15—Light Music. 8.30—Concert of Viennese Music. 9.0—Songs from Opéra-Comique. 9.15—Military Music. 9.30—Accordion Solos. 9.45—Songs from Opera. 10.0—Orchestral Selections.

10.15—Introduction to "Cavalleria rusticana" (Mascagni). 10.30—News Bulletin. 10.45—Songs from Operetta. 11.0—Accordion Music. 11.15—North African News. 11.30—Octet in F Major (Schubert). 12 *midnight*—Weather Announcements and Close Down.

TRIESTE (Italy)

Ente Italiano Audizioni Radiofoniche. 1,211 kc/s (247.7 m.); 10 kW.

9.40 *a.m.*—12.20 *p.m.*—See *Turin*.

12.20—German Lesson on Gramophone Records. 12.30—7.5—See *Turin*.

7.5—*Quintet Concert*. Carnival from the Italian Suite (Kostal). Très jolie (Waldteufel). Serenata amorosa (Grit). Crepuscolo orientale (De Micheli). Selection from "I Pagliacci" (Leoncavallo). Il tango della Primavera (Apollonio). Non sono un Clown (Loubè).

8.0 till Close Down—See *Turin*.

TURIN (Italy)

Ente Italiano Audizioni Radiofoniche. 1,096 kc/s (273.7 m.); 7 kW. Relayed by *Milan*, 905 kc/s (331.5 m.), and *Genoa*, 959 kc/s (312.8 m.).

9.40 *a.m.*—Giornale Radio. 9.55—Chimes and Missa Cantata from the Cathedral of San Giusto. 11.0—Religious Programme.

12.30—2.30 *p.m.*—*Concert of Popular Music*. Overture, "William Tell" (Rossini). Selection for Violin (Lehár). Serenade from "Les Millions d'Arlequin" (Drigo). Hungarian Rhapsody No. 2 (Liszt). Serenade from the Quartet in F Major (Haydn). Selection from "Lucia di Lammermoor" (Donizetti). Canzonetta (Toni). Selection (Komzak). Fiori italiani (Hummer). In the interval at 1.0—Time Signal and Programme Announcements.

4.0—Sports Notes, Football Report and Notes on Art. 4.10—Concert by the Turin Railway Band. 5.40—Dance Music, relayed from the Fiaschetteria Toscana. 6.15—Giornale Radio; Sports Notes. 6.25—Topical Journal. 7.0—Sports Notes. 7.5—Announcements.

7.10—*Variety Concert*. Overture, "The Armourer" (Lortzing). Songs. Violin Solo: Zingaresca (Nachez). Songs.

7.30—Time Signal and Programme Announcements. 7.31—Light Music on Gramophone Records. 8.0—Giornale Radio and Sports Notes.

8.15—*Concert of Light Music*. Overture, "Light Cavalry" (Suppé). Selection from "Der Opernball" (Heuberger). Selection from "Caccia" (Magro).

9.0—Relay of an Opera. In the intervals, Talk, Theatre Notes and Giornale Radio. After the Opera, News Bulletin.

VIENNA (Austria)

Radio-Wien. 581 kc/s (517 m.); 15 kW. Relayed by *Graz*, 852 kc/s (352.1 m.); *Innsbruck*, 1,058 kc/s (283 m.); *Klagenfurt*, 662 kc/s (453.2 m.); *Linz*, 1,220 kc/s (246 m.); and *Salzburg*, 1,373 kc/s (218 m.).

9.45 *a.m.*—Concert by the Vienna Trumpet Choir. 10.15—Concert by the Vienna Symphony Orchestra and Julius Isserlis (Pianoforte).

11.30—See Leipzig. 12.10 *p.m.*—Talk: Palæontological Excavations in Austrian Caves. 12.40—Quartet Concert of Viennese Music.

1.30—*Concert by the Vienna Branch of the Austrian Workers' Choral Society*, conducted by Dr. Hans Feichtner. Two Selections for Male Voice Choir with Pianoforte accompaniment (Schubert): (*a*) Twenty-third Psalm, (*b*) Der Gondelfahrer. Ritornell (Schumann). Folk Melody, Die Königskinder (arr. Kremser). Folk Melody. Ach Bäumchen, du stehest grüne (arr. Reger). Schlummerlied (Hlinak). Hessian Folk Song, Mein Mädel hat einen Rosenmund (arr. Viktor Keldorfer). Folk Melody, Bäurin, komm nach Hause rasch (arr. Hugo Jüngst).

3.0—Time and Programme Announcements. 3.5—Field and Country—Literary Readings.

3.30—*Concert by the Alfred Rondorf Guitar Chamber Music Society*. Quartet, Op. 4, No. 3, for Violin, Viola, Guitar and 'Cello (Paganini). Sonata in E Minor for Oboe and Guitar (Rebay). Quartet No. 4 for Two Flutes, Guitar and 'Cello (Schmetterer).

4.20—Concert by the National Opera House Orchestra, conducted by Karl Auderieth. Soloist: Hans Skriwanek (Tenor). Overture, "Masaniello" (Auber). Scènes pittoresques (Massenet). Tenor Solos: (*a*) Legend from "The Tales of Hoffmann" (Offenbach), (*b*) Song from "Der Kuhreigen" (Kienzl). Serenade in D Major for String Orchestra (Fuchs). Tenor Solos: (*a*) Song from "A Waltz Dream" (Oscar Straus), (*b*) Song from "Frederica" (Lehár). Scenes from "Lazy John" (Nedbal). Waltz, Toujours ou jamais (Waldteufel). Overture, "A Night in Venice" (Johann Strauss).

5.50—Second Half of the International Football Match, Austria *v.* Hungary, relayed from the Hohe Warte. Willy Schmieger at the Microphone. 6.45—Talk by Dr. Anton Klina: Humour in Technics. 7.15—Franz Schrönhamer-Haimdal reads from his own Works. Introductory Talk by Dr. Alfred Wurmb.

7.45—First Results of the Elections in Austria and Germany. 7.50—Time, Sports Notes and Programme Announcements. 8.0—Orchestral Concert. 10.0—Announcements. 10.15—Concert by the Ganglberger Orchestra. 12 *midnight*—Gramophone Concert of Popular Music. In the interval, **Election Results.** 1.0 *a.m.* (*Monday*)—Close Down.

WARSAW (Poland)

Polskie Radio. 212.5 kc/s (1,411 m.); 120 kW.

10.0 a.m.—High Mass, relayed from Lwów. 11.35—Talk for Missionaries. 11.58—Time Signal and Bugle Call from St. Mary's Church, *Cracow*. 12.5 *p.m.*—Programme Announcements. 12.10—Weather Report.

12.15—Symphony Concert by the Warsaw Philharmonic Orchestra, conducted by Josef Ozminsky. Soloists: Alfred Ginsburg (Violin), Th. Luczaj (Vocalist), and G. Lefeld (Pianoforte). Overture, "The Marriage of Figaro" (Mozart). Violin Concerto in D Major (Mozart). Three Songs (Beethoven): (*a*) Sanctus, (*b*) Benedictus, (*c*) In questa tomba oscura. Symphony Nc. 7 in A Major (Beethoven).

2.0—Talk on Insurance. 2.20—Music from *Lwów*. 2.40—Talk on Animals. 3.0—Musical Programme, relayed from *Lwów*. 3.15—Military Programme. 3.55—Programme for Children. 4.20—Light Music on Gramophone Records. 4.40—Review of Women's Periodicals. 4.55—Popular Music on Gramophone Records. 5.15—Talk on St. George. 5.30—Useful Hints.

5.45—*Concert by a Police Band*, conducted by Al. Sielski, Soloists: Br. Nietyksza (Tenor) and L. Urstein (Pianoforte). Overture, "The Italian Girl in Algiers" (Rossini). Minuet (Boccherini). Selection from "The Merry Widow" (Lehar). Tenor Solos: (*a*) Air from "Fedora" (Giordano), (*b*) Air from "Manon Lescaut" (Puccini), (*c*) Vorrei morir (Tosti), (*d*) Siciliana from "Cavalleria Rusticana" (Mascagni), (*e*) All Souls' Day (Lassen), (*f*) Le Cadeau (Zelensky). Selection from "Halka" (Moniuszko). Coniavienne (Novoviejsky). Pilsudsky's March (Lampe). News Bulletin in the interval.

7.25—Light Music on Gramophone Records. 7.40—Programme Announcements. 7.45—See *Lwów*.

8.15—*Concert of Popular Operatic Music*, by the Station Orchestra, conducted by Josef Ozminsky, Soloists: Wanda Roesler-Stokovska (Mezzo-Soprano), Zmigrod-Fedyczkovska (Soprano), and Louis Urstein (Pianoforte). March from "Lohengrin" (Wagner). Selection from "The Pearl Fishers" (Bizet). Soprano Solo: Air from "Lakmé" (Delibes). Mezzo-Soprano Solo: Air from "La Favorita" (Donizetti). Duet from "The Queen of Spades" (Tchaikovsky). Waltz from "Eugen Onegin" (Tchaikovsky). Oh Star of Eve from "Tannhäuser" (Wagner). Air from "The Mastersingers" (Wagner). Vocal Duets: (*a*) Duet from "Aïda" (Verdi), (*b*) Duet from "Madame Butterfly" (Puccini), (*c*) Duet from "Lakmé" (Delibes). Ballet Music from "Hérodiade" (Massenet). Dances from "Halka" (Moniuszko). Oberek (Sonnenfeld).

9.55—Literary Reading.

10.10—Pianoforte Recital, by Sophie Jaroszewicz. Siciliana (Bach). Intermezzo in B Flat Minor (Brahms). Rhapsody in G Minor (Brahms). Sonata in F Minor—the Appassionata (Beethoven). La plus que lente (Debussy). Reflets dans l'eau (Debussy).

10.40—Weather and Police Notes. 10.45—Sports Notes. 10.55—Interval. 11.0—Dance Music, relayed from the Georges Café.

WILNO (Poland)

533 kc/s (563 m.); 16 kW.
Transmits at intervals from 10.10 a.m.

7.0 *p.m.*—Literary Programme. 7.20—Talk: "What is happening in Wilno." 7.40—Programme Announcements. 7.45—See *Lwów* 8.15—Concert of Light Music. 8.45—Concert of Chamber Music. 10.10—See *Warsaw*. 12 *midnight* (approx.)—Close Down.

ZAGREB (Yugoslavia)

977 kc/s (307 m.); 0.75 kW.
Transmits at intervals from 11.0 a.m.

5.0 *p.m.*—Dance Music on Gramophone Records. 6.30—7.10—Interval. 7.10—Report. 7.20—Talk on Domestic Life in China. 7.40—Talk on Astronomy. 8.5—Talk: "The Renaissance in Italy." 8.30—Concert of Popular Music. 9.30—Dr. Slavko Batusic reads from his own Works. 10.0—Concert (contd.). 10.30—News and Weather Forecast. 10.40—Dance Music. 11.0 (approx.)—Close Down.

MONDAY (April 25)

PRINCIPAL EVENTS

SYMPHONY CONCERTS

7.40 p.m. Budapest: 1st and 9th Symphonies (Beethoven).
8.0 „ Leipzig.
8.40 „ Huizen: "Jephtha" (Handel).
8.50 „ Vienna: Hubay programme.
9.0 „ Italian stations: Singer, Tito Schipa.
9.30 „ Berlin (Witzleben): 5th Symphony (Tchaikovsky).

CONCERTS (Vocal and Instrumental)

7.45 p.m. Vienna: Friedrich Schorr and orchestra.
8.0 „ Brussels No. 2.
8.10 „ Stockholm: Military Band.
8.15 „ Warsaw: Jewish music.
9.5 „ (approx.) Schweizerischer Landessender: Mozart.
10.0 „ Warsaw: Railway Bands Contest.
10.10 „ Hilversum: Choral.
10.45 „ Oslo: Relay from several European stations.
10.45 „ Munich, Stuttgart.

OPERAS AND OPERETTAS

9.10 p.m. Frankfurt, Stuttgart: "Die Götterdämmerung" (Wagner), Act II.
9.45 „ Palermo: Gala evening: "La Bohème" (Puccini).

CHAMBER MUSIC.

6.30 p.m. Brussels No. 2: 'Cello and pianoforte.
8.45 „ Radio-Paris: String Quartet (Luzzari).
10.30 „ Copenhagen: Quintet, Op. 77 (Dvorak).

RECITALS

9.20 p.m. Breslau: Marteau (Violin).
9.30 „ Radio-Paris: Organ (Ste. Clotilde).

PLAYS

8.0 p.m. Frankfurt, Stuttgart: "Baron von Münchhausen" (Matthias).
8.45 „ Langenberg: "The Rape of the Sabine Women" (v. Schönthan).
9.10 „ Munich: "The White Fan" (Hofmannsthal).

Tito Schipa

For so many years already he has been a well-known figure on all the world's opera stages that we think of him as a cosmopolitan rather than as an Italian. But he does belong to the land which has given the world so many of its great singers. Born in 1889, at Lecce, he made his début, at the age of twenty-two, at Vercelli: thence, by way of Europe, he conquered America too, until now he has few rivals in his own sphere. He sings to-night in the concert from the ITALIAN Stations. Our portrait shows him as Des Grieux in Puccini's *Manon Lescaut*.

[*Photo: Lumière, New York.*
Tito Schipa

The Curse of the Ring

The Nibelung's Ring, which gives Wagner's great cycle its name, endowed its possessor with dominion over the whole world. But it carried with it, too, a relentless curse. At the beginning of *The Dusk of the Gods*, the last drama in the cycle, the ring has come into the possession of Siegfried, but the Nibelung race are still scheming to win it back from him. Hagen, the son of the Nibelung Alberich, who first stole the gold and fashioned the ring, is a mighty warrior, head of the clan of the Gibichungs, and possessed of some of his race's magic lore. When the curtain rises on the stately hall where he reigns, he is himself sitting on guard. Alberich rises from the earth, and urges on him the need of every cunning guile to secure the ring; the music of this scene is sombre and mysterious. Then a beautiful orchestral passage heralds daybreak, and Siegfried enters. In the first Act, Hagen had robbed him of his memory by a magic potion, which blotted from his mind all thought of Brünnhilde, the wonderful warrior maiden whom he had found asleep on the rock and had won as his bride. Now he is to wed Gutrune, Hagen's sister, and is to give Brünnhilde as wife to Gunther, the Gibichung's brother. With the blowing of a mighty trumpet, and a loud call from his own strong throat, Hagen summons his vassals to bid Gunther and Brünnhilde welcome as they reach the hall. Brünnhilde, seeing Siegfried, is horror-struck by his treachery, knowing nothing of the guile which brought it about, and there is a dramatic scene where first Siegfried, and then she, swear on the point of Hagen's spear that what they do is in good faith. Hagen's plot succeeds; he makes Gunther and the vassals understand Siegfried's treachery, and they all agree that it demands the hero's death. Brünnhilde, too, condemns him as false. The Act closes with the joyous music for the two-fold bridal of Siegfried and Gutrune, and Gunther and Brünnhilde. But the grim theme known as the "Motive of Murder" breaks in on the jubilant notes, and it is to its foreboding sound that the curtain falls. That is the Second Act of *The Dusk of the Gods*, which FRANKFURT and STUTTGART stations are to broadcast this evening.

NATIONAL

	kc/s.	m.	kW.
London:	1,148	261.3	50
Daventry:	193	1,554.4	30
Northern:	995	301.5	50

10.15 *a.m.*—The Daily Service.
10.30—10.45—Time Signal (Greenwich); Shipping Forecast.
12 *noon*—A Light Classical Concert. Dorothy Davies (Soprano). The Sylvan Trio.
12.45 *p.m.*—The Commodore Grand Orchestra, directed by Joseph Muscant.
1.0—Time Signal (Greenwich).
1.45—Hints from Other Cooks—XVII.
2.0—Housewives' News.
2.5—Gramophone Records.
2.25—For the Schools. Reception Test.
2.30—3.0—World History. Mr. J. A. White: "Empires, Movements, and Nations—II, The British Dominions."
3.45—A Sonata Recital. Deszo Kordy (Violoncello). Clarence Barber (Pianoforte).
4.15—Moschetto and his Orchestra.
4.45—Time Signal (Greenwich).
5.15 (Daventry)—The Children's Hour.
5.15 (London and Northern)—Dance Music. Joe Kaye and his Orchestra.
6.0—"The First News."
6.30—Time Signal (Greenwich).
6.30—The Foundations of Music. Handel's Pianoforte Music. Played by Edwin Benbow.
6.50—7.20—"New Books." Mr. Desmond MacCarthy.
7.30—"Music, Old and New"—III. Mr. Victor Hely-Hutchinson.
8.0—Vaudeville.
9.0—Time Signal (Greenwich).
9.0—"The Second News."
9.15—Shipping Forecast; New York Stock Market Report.
9.20—"Un Unknown Island"—XVI. Mr. S. P. B. Mais.
9.40—"There are Crimes and Crimes." A Comedy by August Strindberg. Adapted for broadcasting by Dulcima Glasby. Produced by Howard Rose.
11.10—12.0—Dance Music.
11.30—Time Signal (Greenwich).

REGIONAL

	kc/s	m.	kW.
London:	842	356.3	50
Midland:	752	398.9	25
Northern:	626	479.2	50

10.15 *a.m.* (London and Northern)—The Daily Service.
10.30—10.45 (London and Northern) Daventry National Programme.
11.30—12 *noon* (London)—Experimental Television Transmission (Baird Process).
12 *noon*—Ernest Parsons and his Orchestra.
1.0 *p.m.*—Reginald Dixon at the Organ.
1.45—3.0—The Midland Studio Orchestra, directed by Frank Cantell. Harold Howes (Baritone).
3.45 (London and Northern)—Daventry National Programme.
5.15—The Children's Hour.
6.0—"The First News."
6.30 (London)—The Pini Tango Orchestra. Nicola Blake (Songs to the Guitar). Ida Bellerby (Pianoforte).
6.30 (Midland)—The Midland Studio Chorus.
6.30 (Northern)—Reginald Dixon at the Organ.
7.0 (Midland)—Herman Darewski and his Band.
7.15 (Northern)—Laddie Clarke's Imperial Hydro Hotel Orchestra.
8.0 (London and Northern)—Chamber Music. Tatiana Makushina (Soprano). The Virtuoso String Quartet.
8.0 (Midland)—"Rhythm," a Recital of Gramophone Records.
8.40 (Midland)—"The Bogey Foursome."
9.15 (London and Midland)—Jean Gilbert, conducting the B.B.C. Theatre Orchestra in a Programme of his Music.
9.15 (Northern)—Dance Music. Bertini's Dance Band.
9.40 (Northern)—The Rev. E. C. Tanton: "Literary Tours of the North."
10.0—Bertini's Dance Band (continued).
10.15—Second General News Bulletin.
10.35—11.0 (Midland)—As London.
10.35—12 *midnight* (London and Northern)—Dance Music.

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)

825.3 kc/s (363.3 m.); 13 kW.
Transmits at intervals from 12.30 p.m.
7.0 *p.m.*—*Military Music.* Nibelungen-Marsch (Wagner). March from "Carmen" (Bizet). Marche des Médaillés Militaires (Courtade).
7.10—Financial Report, and Exchange Quotations. 7.20—Shipping Report and Weather Forecast. 7.25—Cinema Review. 7.35—Songs from Sound Films. 7.55—News and Time Signal.
8.0—*Instrumental Concert.* Soloists: Mlle. Prochasson and M. Morelli ('Celloists). Overture, "La Petite Mariée" (Lecocq). Humoresque (Dvorak). Ballet Music from "Javotte" (Saint-Saëns). Three Pieces for two 'Cellos (Brahms). Sérénade de Gillotin (Goublier). Suite, Mikhail (Brunel).
9.10—Songs from Operas. 9.25—News Bulletin. 9.30—Dance Music relayed from the Municipal Casino.

BARCELONA (Spain)

Radio-Barcelona (EAJ1). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 12 noon.
8.0 *p.m.*—*Concert by the Station Trio.* Second Concerto (Couperin). 8.30—Exchange Quotations and Request Gramophone Records, followed by Sports Notes and News. 10.0—Chimes and Weather Forecast. 10.5—Humorous Review of the Week's Events in Verse.
10.15—*Concert by the Station Orchestra.* March, Mitologia (Bosch Humet). Waltz, Manolo (Waldteufel). Minuet from the Symphony in E Flat (Haydn). Entr'acte from "Ghismonda" (Février). Rigaudon from "Dardanus" (Rameau).
11.0—Concert of Catalan Music from the Works of Eduardo Toldra. Soloist: Concepcion Callao (Vocalist)
12.30 *a.m.* (*Tuesday*)—Relay of Dance Music. 1.0 (approx.)—Close Down.

BELGRADE (Yugoslavia)

697 kc/s (430.4 m.); 2.5 kW.
Transmits at intervals from 11.0 a.m.
4.0 *p.m.*—Light Music on Gramophone Records. 5.0—National Songs on the Accordion. 5.30—Popular Songs by Herr Dino Ljubisic. 6.55—Programme Announcements. 7.0—French Lesson. 7.30—Gymnastics Lesson. 8.0—Popular Music on Gramophone Records. 8.30—Quartet in D Major, No. 21 (Mozart), by the Wireless String Quartet. 9.0—Comedy (to be announced). 9.40—News Bulletin.
10.0—*Concert of Russian and Czech Music by the Station Orchestra.* Overture, "Ruslan and Ludmilla" (Glinka). Elegy (Suk). Humoresque (Dvorak). Tenth Slavonic Dance (Dvorak). Selection from "Boris Godounov" (Moussorgsky).
10.50—Cigány music from the "Amerikanac" Restaurant.

BERLIN (Germany)

Königs Wusterhausen. 183.5 kc/s (1,635 m.); 60 kW.
Transmits at intervals from 5.45 a.m.
12.5 *p.m.*—Programme for Schools. *Lesson in English* — Scenes from "The Merchant of Venice" (Shakespeare), followed by Weather for Farmers. 12.55—Nauen Time Signal. 1.30 — News Bulletin. 2.0—Gramophone Concert of Old Operatic Music, from *Berlin* (*Witzleben*). 2.45—The Children's Newspaper. 3.30—Weather and Exchange. 3.40—Talk for Young People: The Construction of Society. 4.0—Talk: Radio and Country Schools.
4.30—See *Berlin* (*Witzleben*). 5.30—Talk: Superstitions in Business and in Private Life. 6.0—Talk on Ernst Moritz Arndt. 6.30—Elementary Spanish Lesson, followed by Weather for Farmers. 7.5 (approx.)—See *Berlin* (*Witzleben*). 7.30—Agricultural Talk, followed by Second Weather Report for Farmers.
8.0—See *Hamburg*. 10.0—News Bulletin. 10.15—Talk: Travel in Germany I 10.35—Dance Music from *Berlin* (*Witzleben*). 12.30 *a.m.* (*Tuesday*)—Close Down.

BERLIN (Germany)

Witzleben. 715 kc/s (419.5 m.); 1.5 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics and Gramophone Concert).
4.30 *p.m.*—*Pianoforte Recital.* Toccata in D Minor and Sarabande (Johann Jacob Froberger). Four Fugues on the "Magnificat" (Johann Pachelbel). Sonata in D Major (Mozart).
5.0—*Recital of Songs* by Frieda Dierolf (Contralto). Four Songs (Othmar Schoeck): (*a*) Frühlingsruhe, (*b*) An meine Mutter. (*c*) Frühlingsfeier, (*d*) Auf meines Kindes Tod. Three Songs (Max Fiedler): (*a*) Sonntagsgruss, (*b*) Hütet euch, (*c*) Im Kahn.
5.30—Tales by "Dr. Ueberall."
5.50—Economic Review. 6.15—Reading of Stories (Somin). 6.35—Dialogues with Working People—IV. The Employee in Modern Industrial Work. 7.5—"The Witzleben Station informs its Listeners. . . ."
7.10—Topical Talk. 7.20—Political Press Review. 7.40—Labour Market Report.
7.45—"Solneman, the Invisible"—A Radio Play (Robert Kümmerlen), after the Novel by A. M. Frey. 9.15—News Bulletin.
9.30—The Fifth Symphony in E Minor, Op. 64 (Tchaikovsky), relayed from the Stadthalle, *Magdeburg*. The Magdeburg Municipal Orchestra, conducted by Professor Hermann Abendroth. 10.20—Second News, followed by Dance Music from the Femina. 12.30 *a.m.* (*Tuesday*)—Close Down.

BORDEAUX-LAFAYETTE (France)

(PTT). 986 kc/s (304 m.); 13 kW.
Transmits at intervals from 12.45 p.m.
7.30 *p.m.*—News, Exchange and Market Prices. 7.40—Sports Notes. 7.55—Lottery Results. 8.0—Talk on Hygiene. 8.15—Charades. 8.20—News and Weather. 8.30—Soloist Concert of Classical and Modern Music. After the Programme, Bordeaux Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)

1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 11.0 a.m.
6.40 *p.m.*—Serbo-Croate Lesson. 7.0—See *Prague*. 7.20—See *Brno*. 8.55—Programme Announcements. 10.20—Concert relayed from the Museum Café.

BRESLAU (Germany)

923 kc/s (325 m.); 1.5 kW. Relayed by *Gleiwitz*, 1,184 kc/s (253 m.).
Transmits at intervals from 6.30 a.m.
6.25 *p.m.*—French Programme. 6.40 Health Talk. 7.0—Weather Fore-

cast, followed by Swiss National Music on Gramophone Records. 8.0—Weather Report, followed by Talk by Dr. Hans Driesch. 8.30—Variety Music of all Nations on Gramophone Records. 9.10—News Bulletin. 9.20—Violin Recital by Henri Marteau, with Hermann Zanke (Flute), and Edmund Nick (Pianoforte). Divertissement for Violin and Flute (Marteau). Sonata, Op. 30, for Violin and Pianoforte (Thuille). 10.10—Time Signal, Weather, Press Review, Sports Notes and Programme Announcements. 10.40—Sports Talk. 10.50—Answers to Technical Enquiries. 11.10 (approx.)—Close Down.

BRNO (Czechoslovakia)

878 kc/s (342 m.); 35 kW.
Transmits at intervals from 11 a.m. 6.0 *p.m.*—Topical Talk. 6.15—See *Prague*. 6.25—German Transmission—News and Talks. 7.0—See *Prague*. 7.5—Talk by Dr. Fraenkl. 7.20—Cabaret arranged for Radio. 8.20—Choral Concert. 8.55—See *Prague*. 10.15—Announcements. 10.20—See *Prague*.

BRUSSELS (Belgium) (No. 1)

I.N.R. 590 kc/s (509 m.); 15 kW.
12.15—2.0 *p.m.*—Weather and "Aida" —(Verdi), Acts I, II and III, on Gramophone Records. 2.0—3.0—Broadcast for Schools. Czechoslovakian Programme. 2.0—The National Anthem. 2.4—Talk on Vladimir Slivick the Czechoslovakian Envoy at Brussels. 2.15—Talk: Some aspects of Czechoslovakia and its Capital. 2.35—Czechoslovakian Folklore and Music. 5.0—Concert relayed from the Hotel Atlanta.
6.15—Talk for Tourists.
6.30—*Gramophone Concert*. March, Nogent-sur-Marne (Paradis). Waltz, Le Bal de la Reine (Paradis). Mazurka, La Czarine (Ganne). Polka, Coq et Poule (Paradis). Erlkönig (Schubert). Der Doppelgänger (Schubert). Carnaval de Venise (Benedict). Ballad in G Major (Chopin). Histoires d'enfants (Blech). Retraite de Crimée (Magnier).
7.15—Talk: Wireless Education.
7.30—Theatre Notes. 8.0—Concerto for Horn (Mozart), by Mr. Van Boextael. 8.15—"*Miyin*," Walloon Lyric Drama in One Act (Boxus).
8.45—Answers to Correspondence.
9.0—Concert by a Russian Balalaika Orchestra, conducted by Zoueff. Soloists: Mr. Koutcheroff (Tenor) and Mr. Chafrof (Baritone). Music arranged by Zoueff. March, Nostalgia. Potpourri, Volga. Gipsy Romance, Gaïda Troïka. Russian Tango. Tenor Solos. Gipsy Romance, Two Guitars. Romance. Baritone Solos with Chorus. Popular Dance Songs. 10.0—Le Journal Parlé.

BRUSSELS (Belgium) (No. 2)

N.I.R. 887 kc/s (338.2 m.); 15 kW.
Programme in Flemish.
12.15—2.0 *p.m.*—Weather and Concert by Max Alexys and his Orchestra. 2.0—3.0—Broadcast for Schools. 2.0—Talk: The Life and Works of Prosper Van Langendonck. 2.28—Variety Music on Gramophone Records. 2.30—Lesson from the Aquarium.
5.0—*Orchestral Concert*, conducted by Jean Kumps. Overture, "The Marriage of Figaro" (Mozart). Pavane pour une Infante défunte (Ravel). Gavotte (Sgambati). Berceuse (Vreuls). Selection from "The Resurrection" (Alfano). Minuet from "A Bourgeois Gentilhomme" (Lulli). Meditation (Rasse). Scherzo (Lalo). Ballet Music from Henry VIII (Saint-Saëns).
6.0—*Gramophone Records of Russian Choruses*. Tri Piesni (arranged Dobroven). Kolj Slevnj (Bortnjansky). Cossack Lullaby (Gretschaninov). In the Church (Tchaikovsky). 6.15—Book Review.
6.30—Recital by M. Oitsch and Charles Scharrès. Fantasiestücke (Schumann). Sonata in F, Op. 99 (Brahms). 7.15—Variety Items. 7.30—Le Journal Parlé.
8.0—Orchestral Concert, conducted by Jean Kumps. Overture, "William Tell" (Rossini). Suite in D (d'Indy). Selection from "L'Arlequin" (d'Ollone). Pastorale variée (Pierné). 8.45—Talk by Corry Lievens. **9.0—Concert** (continued). Overture, "Il Seraglio" (Mozart). Ballet des petits riens (Mozart). Aria from "The Magic Flute" (Mozart). Variations on a Theme by Haydn (Brahms). Liebesfreud (Kreisler). Bass Songs from the Works of Schubert and Belgian Composers. Waltz, Estudiantina (Waldteufel). 10.0—Le Journal Parlé.

BUCHAREST (Romania)

Radio-Bucarest. 761 kc/s (394 m.); 12 kW.
Transmits at intervals from 12 noon.
5.0 *p.m.*—*Concert by the Station Orchestra*. March, Soldatenleben (Schmeling). Waltz, The Blue Danube (Johann Strauss). Overture, "The Caliph of Bagdad" (Boieldieu). Memories of Bitolj (Karastoyanov). Ballet Suite, La Source (Delibes). Estudiantina (Waldteufel). 6.0—News and Time Signal. 6.10—*Concert* (*contd.*). Potpourri, Fortissimo (Kalman). Fantasia (Morena). March, Tapfer und treu (Dicker).
7.0—Scientific Talk. 7.40—Light Music on Gramophone Records.
8.0—Quartet in D Flat Major (Dohnanyi). 8.25—Theatre Review.
8.55—*Pianoforte Recital* by Mme. Cosub Zamfirésco. Caprice (Scarlatti). Fantaisie-Impromptu (Chopin). Nocturne for Left Hand (Scriabin). The Nightingale (Liszt). La Campanella (Liszt-Paganini).
9.15—Trio in D Major, Op. 70 (Beethoven). 9.45—News Bulletin.

BUDAPEST (Hungary)

545 kc/s (550 m.); 18.5 kW. Also relayed on 210 metres from 7.30 p.m. to 12 (midnight).
Transmits at intervals from 9.15 a.m.
5.0 *p.m.* — *Pianoforte Recital*. Chaconne (Bach-Busoni). No. 2 in G Minor from "Ruralia Hungarica" (Dohnanyi). Burlesque (Béla-Bartok). Prelude to "Nemo" (Count Zichy). Two Selections (Liszt): (*a*) Gewitter, (*b*) Mazeppa.
5.30—Talk. 5.50—Cigány Concert.
6.35—Talk in memory of Stefan Tömörkeny. 7.10—German Lesson.
7.40—Concert by the Philharmonic Society, conducted by Ernst Dohnanyi, relayed from the Royal Hungarian Opera House. The Philharmonic Orchestra and the Palestrina Choir. The First Symphony (Beethoven). The Ninth Symphony (Beethoven). After the Concert: Dance Music from the Hotel Britannia. 11.0 (in an interval)—Talk in Italian.

COPENHAGEN (Denmark)

1,067 kc/s (281 m.); 0.75 kW. Relayed by *Kalundborg*, 260 kc/s (1,153 m.).
Transmits at intervals from 7.30 a.m.
7.30 *a.m.*—Morning Gymnastics. 8.30—Divine Service from the Cathedral. 11.0—Weather Forecast. 11.10—Fish Market Prices. 11.15—Educational Talk: Denmark's Old Colonies in Africa and Asia. 12 *noon*—Time and Chimes from the Town Hall. 12.2 *p.m.*—String Ensemble Concert conducted by Max Skalka, relayed from the Hotel d'Angleterre. 2.0—3.20—Interval. 3.20—Talk for Housewives.
3.30—*Concert by Louis Preils' Instrumental Ensemble*. March, Stadion (Dupont). Overture, "Pique Dame" (Suppé). Selection (Weyse). Waltz (Waldteufel). Selection from "Der Bettelstudent" (Millöcker). Skön er Vaaren (Heise). Neapolitan Serenade (Bayer). Reading from the Works of Harald Lund. Waltz, Wienerblut (Joh. Strauss). Cigány Dance from "Henry VIII" (Saint-Saëns). Selection from "Lucia di Lammermoor" (Donizetti). Jomfru du maa ikke sove (Henriques). Spring (Hildach). Slavonic Dance, No. 5, in A Major (Dvorak). Det gyldne Spilleuhr (Krome).
5.40—Exchange and Fish Market Prices. 5.50—Talk. 6.20—*English Lesson for Beginners*. 6.50—Weather Forecast. 7.0—News Bulletin. 7.15—Time Signal. 7.30—Talk for Girls.
8.0—Chimes from the Town Hall.
8.2—"Mary Stuart"—Play in Five Acts (Schiller), arranged for Radio. Danish Translation by Johannes Magnussen. 10.15—News Bulletin.
10.30—Chamber Music. Quintet in G Major, Op. 77, for Two Violins, Viola, 'Cello and Double Bass (Dvorak). 11.0 (approx.)—Close Down.

CRACOW (Poland)

959 kc/s (312.8 m.); 1.5 kW.
Transmits at intervals from 11.45 a.m.
6.50 *p.m.*—Miscellaneous Items and Sports Notes. 7.10—Talk on Montenegro. 7.25—Programme Announcements. 7.30—Popular Music on Gramophone Records. 7.45—11.0—See Warsaw. 12 *midnight* (approx.)—Close Down.

DUBLIN (Ireland)

(2RN). 725 kc/s (413 m.); 1.2 kW. Relayed by *Cork*, 1,337 kc/s (224.4 m.).
1.30 *p.m.*—Time Signal, Weather Forecast, Stock Report and Light Music on Gramophone Records. 2.0—6.0—Interval. 6.0—Popular Music on Gramophone Records.

MONDAY
continued

6.15—Programme for Children. 7.0—Light Music on Gramophone Records. 7.20—News Bulletin.
7.30—Time Signal. 7.31—Gaedhilge. 7.45—Dramatic Programme. 8.0—Station Sextet. 8.15—Soprano Solos by Mollie Phillips. 8.30—Violin Solos by E. Reddy. 8.45—"The Fur Coat"—Play presented by Elizabeth Young and Company. 9.15—Curt Smith (Singer-Banjoist). 9.30—Sponsored Programme. 10.30—Time Signal, News, Weather Forecast and Close Down.

FÉCAMP (France)

Radio Normandie. 1,364 kc/s (219.9 m.); 10 kW.
Transmits at intervals from 12 noon.
7.30 *p.m.*—News Bulletin. 7.45—Miscellaneous Announcements. 8.0—Wireless Notes. 8.15—News Bulletin. 8.30—Concert arranged by the "Théâtre d'Art Cauchois, with "*Eun' Soirée cheux les Graillot*"—Play in One Act (Robert). 11.0 *p.m.*—1.0 *a.m.* (*Tuesday*)—Variety Concert. 1.0 *a.m.* (approx.)—Close Down.

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.5 kW. Relayed by Cassel, 1,220 kc/s (246 m.).
Transmits at intervals from 6.0 a.m.
12 *noon*—See *Stuttgart*. 12.50 *p.m.*—News Bulletin. 12.55—Nauen Time Signal.
1.0—*Gramophone Concert*. Overture, "Pique Dame" (Suppé). Ziehrer Potpourri, So schön wie's einmal war (arranged by Dol Dauber). Duets: (*a*) Duet from "The Bird Fancier" (Zeller). (*b*) Finale from the First Act of "Der Obersteiger" (Zeller). Im Chambre séparée—Waltz from "Der Opernball" (Heuberger). Duet from "The Bird Fancier" (Zeller). Selection from "Der lustige Krieg" (Strauss). Duets: (*a*) Annina! Caramello! (*b*) Hör mich, Annina! Komm in die Gondel! (Strauss). Duet from "Das Spitzentuch der Königin" (Strauss). Selection from "Wiener Blut" (Joh. Strauss). Two Songs: (*a*) O, dass ich doch der Räuber war, (*b*) Aria from "Gasparone" (Millöcker). Song from "Der arme Jonathan" (Millöcker). Waltz from "The Rose of Stamboul" (Fall).
2.0—News Bulletin. 2.10—Sponsored Gramophone Concert. 3.0—Weather Report. 3.5—Time and Economic Notes. 4.55—Economic Notes. 5.0—Concert from *Munich*.
6.15—Economic Notes. 6.25—Talk: The Cartel System. 6.50—*English Language Lesson*. 7.15—Time, Programme Announcements, Weather and Economic Notes. 7.30—Talk: The Fundamental Principles of Music.
8.0—"Baron von Münchhausen"—Radio Play (Leo Matthias). **9.10—Second Act of "The Twilight of the Gods"—Opera (Wagner).** 10.20—Time, Weather, News and Sports Notes. 10.45—See *Munich*.

HAMBURG (Germany)

Norag (ha, in Morse). 806 kc/s (372 m.); 1.5 kW. Relayed by *Bremen*, 1,112 kc/s (270 m.); *Flensburg*, 1,373 kc/s (218 m.); *Hanover*, 530 kc/s (566 m.) and *Kiel*, 1,292 kc/s (232.2 m.).
Transmits at intervals from 5.45 a.m.
6.30 *p.m.*—A Dialogue with a Chauffeur. 6.55—Exchange Quotations and Market Prices. 7.0—Topical Talk.
7.15—Weather Report. 7.20—Hans Franck reads from his own Works.
8.0—Variety Programme by the Scarpa Dance Orchestra and the Little Norag Orchestra conducted by Adolf Secker. 10.10—News Bulletin.
10.30—Bi-Monthly Report of the Norag Sound Service.

HEILSBERG (Germany)

1,085 kc/s (276.5 m.); 60 kW. Relayed by *Danzig*, 662 kc/s (453.2 m.).
Transmits at intervals from 6.30 a.m.
11.40 *a.m.*—Concert from *Hamburg*.
1.5—2.30 *p.m.*—Concert by the Little Orag Orchestra, conducted by Eugen Wilcken. Victoria March (Blon). Overture, "Isabella" (Suppé). Waltz, Nordseestürme (Döring). Peer Gynt Suite (Grieg). Selection from "Martha" (Flotow). The Rustle of Spring (Sinding). The Blue Danube (Johann Strauss).
3.30—Puzzle Programme for Children. 4.0—Talk: Why no foreign Words? 4.30—Concert from *Breslau*. 5.30—Review of Periodicals.
5.50 (from *Danzig*)—Talk: Danzig and the East—Russia and Poland.
6.15—Agricultural Notes.
6.25—*Recital of Modern Songs* by Lislotte Groos (Soprano), Margarete Schuchmann (Cembalo), and Franz Kirchberger ('Cello). Three Songs of the Time of Need (text by von der Vogelweide) for Soprano, 'Cello and Cembalo, Op. 24 (Herbert Brust): (*a*) Was soll lieblich sprechen, was soll singen, (*b*) Schwarzseher, Zweifler, (*c*) Der kalte Reif tat kleinen Vögeln weh. Four Songs (Ludwig Hess): (*a*) Aud dem Fluss, (*b*) Don Fadrique bringst ein Stündchen, (*c*) Heidestimmung, (*d*) Das Volkslied.
6.50—Talk: Memorable Days of the Week. 7.0—Shorthand Dictation. 7.30—Stories by Fred von Hoerschelmann: (*a*) Mart, (*b*) Kunst für gelbe Katzen. 8.0—Weather Forecast.
8.5—*Concert by the Danzig State Theatre Orchestra*, conducted by Cornelius Kun. Soloist: Maria Donski (Pianoforte). Overture to a Play (Jaromir Weinberger). Concerto for Pianoforte and Orchestra in E Minor (Chopin). Little Suite for Chamber Orchestra (Schreker). 9.25—Announcements. 9.30—Two One Act Plays: (*a*) "The Third Grade" (Jo Hanns Rösler), (*b*) "Der Mann, der die Stiegen heruntergeworfen wird" (Arcady Avertschenko, translated from the Russian by Hirschmann). 10.10—News Bulletin.

HILVERSUM (Holland)

1,004 kc/s (298.8 m.); 8.5 kW.
Programme of the Algemeene Vereeniging Radio Omroep (A.V.R.O.).
8.40 *a.m.*—Time Signal. 8.41—Variety Music on Gramophone Records. 10.40—Time Signal. 10.41—The Daily Service. 10.55—Popular Gramophone Music.
11.10—*Recital by Cato Hespe-du Mée* (*Pianoforte*) *and J. W. van Otterloo* ('*Cello*), Adagio (Vivaldi). Suite (D'Hervelois). Sonata in G for Pianoforte (Mozart). 11.40—Recitations. 12.10 *p.m.*—*Recital* (*continued*). Adagio, Op. 38 (Bargiel). Preludes, Op. 28, Nos. 3, 7, 13 and 15 (Chopin). Sicilienne (Fauré). Habanera (Ravel). Two Songs from Spain (Nin).
12.40—Time Signal. 12.41—2.25—Concert by Kovacs Iajos and his Orchestra, with Songs by Bob Scholte. In the interval, Songs by the Trimm Trio.
2.40—*Vocal and Pianoforte Recital* by Hobyd Krauss-Adema and Geza Frid. Six Hungarian Folk Songs (Béla Bartok). Pianoforte Solos (Debussy): (*a*) Doctor Gradus ad Parnassum, (*b*) The Little Shepherd, (*c*) The Golliwog's Cakewalk. Six Songs for Children (Grosz). Pianoforte Solos: (*a*) Irrlichter (Frid), (*b*) Toccata (Frid). Two Arias from "The Marriage of Figaro" (Mozart).
3.25—Variety Music on Gramophone Records. 3.40—Talk and Popular Music on Gramophone Records.
4.40—**Violin Recital** by Sam Tromp. Egbert Veen at the Pianoforte. Sonata in A Major, No. 5 (Händel). Minuet from the Concerto in A Major (Mozart). Legend (Wieniavsky). Selection (Milhaud).
5.10—Programme for Children.
6.10—*Orchestral Concert*, conducted by Nico Treep. Overture, "Ruy Blas" (Mendelssohn). Waltz, Erinnerung an Baden (Komzák). Selection from "The Pearl Fishers" (Bizet). Somewhere a Voice is calling (Tate). Der alte Brummbär (Fucik). Variety Music on Gramophone Records. Mexico (Alex). Selection (Brodszky). Zum Tanz (Kermbach).
7.25—Weekly Book Talk.
7.55—*Schubert and Schumann Song Recital* by Herm. Schey (Baritone). Egbert Veen at the Pianoforte. Songs (Schubert): (*a*) Der Wanderer an den Mond, (*b*) Who is Sylvia? (*c*) Minnelied, (*d*) Der Musensohn. Songs (Schumann): (*a*) Talismane, (*b*) Die beiden Grenadiere, (*c*) Abends am Strand, (*d*) Freisinn.
8.20—Talk. 8.40—Time Signal.
8.41—*Concert by the Wireless* Orchestra. Soloist: Herm. Schey (Baritone). Overture, "Iphigenia in Aulis" (Gluck). Baritone Solos: (Mozart): (*a*) Mentre ti lacio, (*b*) Un bacio di mani. Andante from the Sixth Symphony (Haydn). Baritone Solo: Hymn to Love (Reger)
9.10—A Radio Play. 9.55—Variety Music on Gramophone Records.
10.10—Concert by a Male Voice Choir. Soloist: Hélène Cals (Soprano). Introduction to "Die Loreley" (Bruch). In a Monastery Garden (Ketelbey). L'alba separa della luce combra (Tosti). Waltz, Il Bacio (Arditi). Selection from "Hérodiade" (Massenet). Selection from "The Barber of Seville" (Rossini). Waltz, Roses of the South (Johann Strauss).
11.10—Weather and News. 11.25—Popular Gramophone Music. 12.40 *a.m.* (*Tuesday*)—Close Down.

HUIZEN (Holland)

160 kc/s (1,875 m.); 8.5 kW.
Programme of the Christian Radio Society (N.C.R.V.).
8.40 *a.m.*—Bible Reading. 8.55—10.10—Variety Music on Gramophone Records. 11.10—Programme for Invalids. 11.40—Religious Reading.
12.10 *p.m.*—Popular Gramophone Records. 12.40—Police Notes. 12.55—Variety Music on Gramophone Records.
1.10—*Organ Recital* by Jan Zwart. Preludes for Psalms Nos. 96, 25 and 105 (Zwart). Allegretto grazioso (Tours). Minuet (Tours). Pastorale (Martens). March (Tollig). Andante religioso (Offenberg). Concerto in D Minor (Händel). Allegretto (Bossi). Toccata (Bossi). Musette (Bossi). Prelude and Fugue (Bach). Andante expressivo (Rheinberger). First Part of the Sonata "Zur Friedensfeier" (Rheinberger). Vision (Rheinberger). Solemn Music on Psalm No. 103 (Zwart).
2.40—Programme for Schools. 3.15—Popular Music on Gramophone Records. 3.25—Talk. 3.55—4.25—Dressmaking Lesson. 4.40—Programme for Invalids.
5.40—*Concert*. P. v. d. Hurk (Flute), W. Clemens (Flute), J. v. Ginkel (Clarinet), and J. Monissen (Pianoforte). Sonata for Two Flutes in E Flat Major (W. F. Bach). Chaconne for Pianoforte (Händel). Sonata for Clarinet and Pianoforte, Op. 5 (Jenner). Sonata for Two Flutes, Op. 75 (Koechlin). Pianoforte Solo: Vier Nachtstücke (Reutter). Kanonische Sonatine, Op. 31, No. 3 for two Flutes (Hindemith). Rhapsody for Two Flutes, Clarinet and Pianoforte (Honegger).
7.10—The Letter Box. 8.10—Police Notes. 8.25—Religious News.
8.40—"Jephtha"—**Oratorio** (Händel), by the Utrecht Municipal Orchestra and the Christian Oratorio Society of Utrecht, conducted by Anthon v. d. Horst. Soloists: To v. d. Sluys (Soprano), Nanda Gerritsen (Soprano), Hans Gruys (Mezzo-Soprano), Annie Woud (Contralto), G. A. Walter (Tenor), M. Kloos (Baritone), Job. Wilderbeek (Cembalo), and B. Verhoeven (Organ). In the interval at 9.40—Dramatic Programme. After the Concert, News and Variety Music on Gramophone Records. 12.10 *a.m.* (*Tuesday*)—Close Down.

KALUNDBORG (Denmark)

Kalundborg Radio. 260 kc/s (1,153 m.); 7.5 kW.
See *Copenhagen*.

KATOWICE (Poland)

734 kc/s (408 m.); 16 kW.
Transmits at intervals from 11.58 a.m.
5.35 *p.m.*—Orchestral Concert. 8.15—See *Warsaw*. 10.0—Relay of the Polish Railways Orchestral Competition. After the Programme: Dance Music. 12 *midnight* (approx.)—Close Down.

LAHTI (Finland)

167 kc/s (1,796 m.); 54 kW. Relayed by *Helsinki*, 815 kc/s (368.1 m.).
Transmits at intervals from 7.10 a.m.
6.50 *p.m.*—Talk (to be announced).
7.15—*Concert by the Station Orchestra*. Selections (Johann Strauss): (*a*) Overture, "Die Fledermaus," (*b*) Waltz, Künstlerleben, (*c*) Overture, "The Gipsy Baron." (*d*) Selections from "Ritter Pasman." (*e*) Radetzky March. Selections (Offenbach): (*a*) Overture, "La Belle Hélène," (*b*) Intermezzo and Barcarolle from "Tales from Hoffmann," and (*c*) Overture, "Orpheus in the Underworld." 8.45—News and Close Down.

LANGENBERG (Germany)

Westdeutscher Rundfunk. 635 kc/s (473 m.); 60 kW.
Transmits at intervals from 6.45 a.m. (Exercises, Weather, Time and Gramophone Concert).
12 *noon*—Concert from *Stuttgart*.
12.5 *p.m.*—Weather, News and Time Signal.
1.0—*Concert, conducted by Wolf*. Overture, "Iphigenia in Aulis" (Gluck). Liebeslieder-Walzer (Brahms). Suite from "Prometheus" (Beethoven). Cradle Song (Ippolitov-Ivanov). Selection from "Der Evangelimann" (Kienzl). Andalusian Romance (Sarasate). Polonaise in D Major (Moszkovsky). Fantasia, Gounodiana (Rhode).

2.30—Meat Market Prices. 3.30—Economic Notes and Time Signal. 3.50—Programme for Children: We play at Punch and Judy Shows. 4.20—Talks for Young People. 5.0—Concert from *Munich*. 6.15—Talk for Women. 6.40—Dialogue for Parents: The Frightened Child. 7.0—Weather, Time, Economic and Sports Notes. 7.15—Topical Talk. 7.30—Talk: The Economic Position of the Rhineland and Westphalia during the First Quarter of 1932. 7.55—First General News. 8.0—Orchestral Concert, conducted by Eysoldt. 8.45—"The Rape of the Sabine Women"—Comedy (Franz and Paul von Schönthan), arranged for Radio by Hans Reimann. 10.10—Last News. 10.25—Concert, conducted by Eysoldt. 12 *midnight* (approx.)—Close Down.

LEIPZIG (Germany)

1,157 kc/s (259 m.); 2 kW. Relayed by *Dresden*, 941 kc/s (319 m.).
Transmits at intervals from 6.30 a.m. 6.0 *p.m.*—Review of New Books—Vienna, Paris, Berlin. 6.30—Literary Talk. 6.50—Talk (to be announced). 7.0—Alfred Wötzel reads from Fritz Reuter's "Ut mine Festungstid."
7.30—*Programme by a Concertina Orchestra.* From a Suite (Ferdinand Fischer): (*a*) Ballet, (*b*) Minuet, (*c*) Rondeau, (*d*) Canaries, (*e*) Passepied. Dance (Valentin Haussmann). German Dance (Melchior Franck). Torch Dance (Praetorius). Dance (Melchior Franck). Contredance (Mozart).
8.0—**Symphony Concert**, relayed from the Alberthalle. The Leipzig Symphony Orchestra, conducted by Carl Schuricht. Soloist: Paul Grümmer ('Cello). The Italian Symphony, No. 4 in A Major, Op. 90 (Mendelssohn). Concerto in B Minor for 'Cello and Orchestra, Op. 104 (Dvorak). Hungarian Rhapsody No. 2 for Orchestra (Franz Liszt) (arranged by Müller-Berghaus).
9.30—**Recital by the Leipzig Vocal Quartet.** Three Madrigals: (*a*) Feinslieb, du hast mich g'fangen (Hasler), (*b*) Gesellschaftslied (Friderici), (*c*) Dance Song (Thomas Morley). Four Folk Songs: (*a*) Wiegenliedchen (Mozart), (*b*) Nachtigall, ich hör dich singen (Fuchs), (*c*) Slavonic Serenade (Hugo Jüngst), (*d*) Love's Enchantment (arr. Röntgen). Four Gay Songs: (*a*) Jägers Lieb (Carl Schiebold), (*b*) Wenn der Vogel nachen will (Eduard Kremser), (*c*) Von den zwei Hasen (arr. von Othegraven), (*d*) Juchhei (Silcher).
10.5—News. 10.45 (approx.)—See *Munich*. 12 *midnight* (approx.)—Close Down.

LJUBLJANA (Yugoslavia)

522 kc/s (574.7 m.); 2.5 kW.
Transmits at intervals from 12.15 p.m. 5.30 *p.m.*—Quintet Concert. 6.30—Talk on the Federation of European States. 7.0—Czech Lesson. 7.30—Talk on Hygiene. 8.0—"*The Barber of Seville*"—Opera (Rossini), on Gramophone Records. 8.45—Chamber Music by the Station Quintet. 10.0—Time Signal and News Bulletin.

LWÓW (Poland)

788 kc/s (381 m.); 16 kW.
Transmits at intervals from 11.45 a.m. 6.50 *p.m.*—Miscellaneous Items. 7.15—Talk: Alchemy and Alchemists. 7.30—Talk: The intellectual Life of the Jews in Poland before the Separation. 7.45—See *Warsaw*. 12 *midnight* (approx.)—Close Down.

LYONS (France)

La Doua (PTT). 644 kc/s (465.8 m.) 1.5 kW.
Transmits at intervals from 8.0 a.m. 7.0 *p.m.*—Popular Music on Gramophone Records. 7.30—Radio Gazette for Lyons and the South-East. 8.30—Sponsored Concert.

MADRID (Spain)

Union Radio (EAJ7). 707 kc/s (424.3 m.); 2 kW.
Transmits at intervals from 10.45 a.m. 8.0 *p.m.*—Chimes, Exchange, Market Prices and Request Gramophone Concert. 9.15—News Bulletin. 9.30 (approx.)—Close Down.

MILAN (Italy)

Ente Italiano Audizioni Radiofoniche. 905 kc/s (331.5 m.); 7 kW.
See *Turin*.

MORAVSKÁ-OSTRAVA (Czechoslovakia)

1,137 kc/s (263.8 m.); 11 kW.
Transmits at intervals from 11 a.m.

MONDAY
continued

7.0—See *Prague*. 7.20—See *Brno*. 8.20—Concert by a Brass Band. 8.55—See *Prague*. 10.15—Programme Announcements and Theatre Guide. 10.20—See *Prague*.

MOSCOW (Russia)

Trades Union. 230.1 kc/s (1,304 m.); 100 kW.
Transmits at intervals from 5 a.m. 4.0 *p.m.*—Proletariat Radio Journal. 5.0—Peasants' Radio Journal. 6.0—Programme to be announced. 8.0—Talk in German and *English*: The Ninth Soviet Trades Union Congress. 9.55—Chimes and Close Down.

MUNICH (Germany)

563 kc/s (533 m.); 1.5 kW. Relayed by *Augsburg* and *Kaiserslautern*, 536 kc/s (560 m.) and *Nürnberg*, 1,256 kc/s (239 m.).
Transmits at intervals from 6.45 a.m. 6.15 *p.m.*—Weather and Agricultural Notes. 6.25—Biographical Notes on Famous Names of the Week: Darwin, Leyden, Hofmiller, Emerson and Langbehn. 6.45—Talk: The Fundamental Characteristics of German Art. 7.5—Talk for Workers. 7.25—Review of New Books (on Gramophone Records). 8.20—"Ja"—a Short Story (Hans Franck).
8.35—*Song Recital by Karl Erb* (Tenor). Endlich soll mir erbluhen (Gluck). Care selve (Händel). Die ihr des unermesslichen Weltalls Schöpfer ehrt (Mozart). Goethe Songs (Schubert): (*a*) Schäfers Klagelied, (*b*) Heidenröslein, (*c*) Der Musensohn, (*d*) Ueber allen Gipfeln ist Ruh.
9.10—"The White Fan"—a Play (Hugo von Hofmannsthal). 9.55—Talk: The Young People's Music Movement in Germany—the Renaissance of Old Music. 10.20—Time, Weather, News and Sports Notes. **10.45—Concert conducted by Erich Kloss.** 12 *midnight* (approx.)—Close Down.

OSLO (Norway)

Kringkastingselskapet. 277 kc/s (1,083 m.); 60 kW. Relayed by *Fredriksstad*, 816 kc/s (367.6 m.); *Hamar*, 536 kc/s (560 m.); *Notodden*, 671 kc/s (447.1 m.); *Porsgrund*, 662 kc/s (453.2 m.), and *Rjukan*, 671 kc/s (447.1 m.).
Transmits at intervals from 11.10 a.m. 6.0 *p.m.*—German Lesson. 6.30—A Visit to a Glass Factory in *Moss*. 7.0—Announcements, Weather and News. 7.30—Technical Talk relayed from *Trondheim*, 608 kc/s (493.4 m.). 8.0—Time Signal.
8.2—Song, Violin and Pianoforte Recital. Amarilli (Caccini). O del mio dolce ardor (Gluck). Die Lotosblume (Schumann). Wanderlied (Schumann). Recitative and Aria from "Faust" (Gounod). Aria from "Hérodiade" (Massenet). Mariä Wiegenlied (Reger). Tango (Albeniz). Norwegian Air (Halvorsen). Humoresque (Halfdan Cleve). Pä fjelhet (Halfdan Cleve). Two Selections (Schubert-Liszt): (*a*) Du bist die Ruh, (*b*) Etude de Concert. Rhapsody No. 4 (Dohnanyi).
9.10—Review of Politics. 9.40—Weather and News. 10.0—Topical Talk. 10.15—Talk: Film Scenarios. **10.45—Relay of Foreign Stations.** 12 *midnight* (approx.)—Close Down.

PALERMO (Italy)

Ente Italiano Audizioni Radiofoniche. 554 kc/s (542 m.); 3 kW.
Transmits at intervals from 12.45 p.m. 5.30 *p.m.*—Light Music and Dance Music from the Olympia Tea-Room. 6.30—8.0—Interval. 8.0—Agricultural Notes, Report of the Royal Geographical Society and Giornale Radio. 8.20—Light Music on Gramophone Records. 8.30—Time Signal and News Bulletin. 8.45—Concert of Light Music and Songs.
9.45—"La Bohème"—Opera in Three Acts (Puccini), relayed from the Vittorio Emanuele Theatre. In the intervals, Fashion Notes Review and Talk. 10.55—News and Close Down.

PARIS (France)

Eiffel Tower (FLE). 207.5 kc/s (1,445.7 m.); 13 kW. Time Signals (on 2,650 m.) at 10.26 a.m. and 11.26 p.m. (preliminary and 6-dot Signals).
Transmits at intervals from 1.0 p.m. 6.45 *p.m.*—Film Review. 7.0—Le Journal Parlé. 8.20—Weather Report.
8.30—Variety Programme with the collaboration of Yvonne Brothier of the Opéra-Comique, Ernest Dupré of the Opéra-Comique, Gaby Benda of the Bouffes-Parisiens, and Louis Baldy, including "*Eux*"—One-Act Comedy (Donnay), by Georges Cusin and Simone Vivoy, of the Odéon Theatre. 9.30—Classical Concert on Gramophone Records.
10.0—*Concert*, with Commentary by André Delacour. Soloists: Marie-Antoinette Pradier (Pianoforte), Léon Zighéra (Violin) and Gabrielle Dauly (Songs). Sonata for Pianoforte and Violin (Beethoven). Songs (Schubert): (*a*) Death and the Maiden, (*b*) Selection, (*c*) Barcarolle. Pianoforte Solos: (Mendelssohn): (*a*) Die Jagd, (*b*) Der Frühling, (*c*) Der Zephir, (*d*) Die Spinnerin. Songs (Schubert): (*a*) Litanei, (*b*) Ständchen, (*c*) Heidenröslein.

PARIS (France)

Poste Parisien. 914 kc/s (328.2 m.); 1.2 kW.
Transmits at intervals from 12 noon. **5.30 p.m.—Opening of the Auditorium and Studios in the Champs-Elysées,** before the Minister of Posts and Telegraphs. 8.30—Light Music on Gramophone Records, and News.
9.30—Official Inaugural Ceremony of the New "Poste Parisien" Station, before the President of the Republic.

PARIS (France)

Radio-Paris (CFR). 174 kc/s (1,725 m.); 75 kW.
6.45 *a.m.*—Physical Culture Course. 7.30—Weather Report and Physical Culture (contd.). 7.45—Light Music on Gramophone Records. 8.0—News, Weather Report and Press Review.
12.30 *p.m.*—*Concert of Chamber Music on Gramophone Records.* Sonata for Flute, Viola and Harp (Debussy). Songs: (*a*) Soir (Fauré), (*b*) Les Roses d'Ispahan (Fauré). Pianoforte Solo: Seguidillas (Albeniz). Seguidilla for Harp Quartet (Albeniz). Song: Lo divi estel (Manen). Pianoforte Solos: (*a*) Jeune Fille au Jardin (Mompou), (*b*) La Rue, le Guitariste et le vieux Cheval (Mompou). Song: Castille (Nin). Intermezzo for 'Cello from "Goyescas" (Granados). Spanish Dance for 'Cello (Granados-Casals). Spanish

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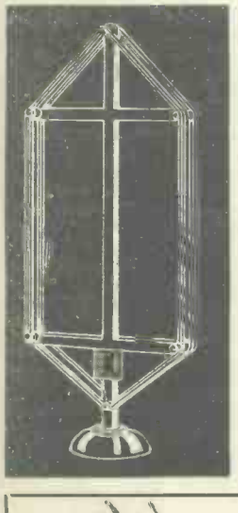

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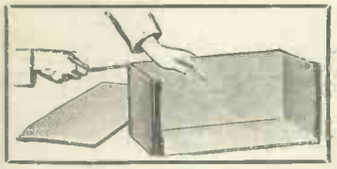

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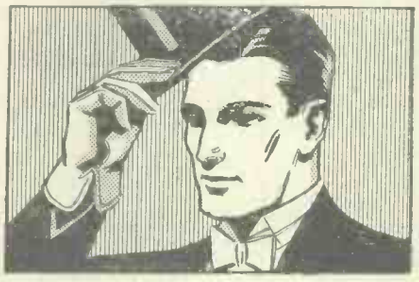

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MONDAY
continued

Dances for Violin (Sarasate). Song: Chanson pour le petit Cheval (de Séverac). Sonata in A Major for Violin and Pianoforte (Fauré). In the intervals at 1.0—Exchange, Quotations, News and Weather Report, and at 1.30 and 2.0—Exchange Quotations.
3.45—Exchange and Market Prices.
6.30—Market Prices, Weather, Agricultural Report and Racing Results.
7.0—Film Review. 7.10—Review of New Books. 7.30 — *Elementary English Lesson*. 7.45—Commercial Prices and News.
8.0 — *Concert*. Concert Pieces (Rameau) by Mlle. Lautemann (Harp), M. Tenebaum (Violin) and M. Boulmé ('Cello): (*a*) La Livri, (*b*) Menuetto, (*c*) Tambourins, (*d*) L'Indiscrète, (*e*) La Marais. Songs on Gramophone Records: (*a*) Traum durch die Dämmerung (Richard Strauss), (*b*) Zueignung (Richard Strauss), (*c*) Iota (Laparra).
8.30 — News, Sports Notes and Weather Report. 8.40—Review by Paul Reboux.
8.45—*Concert (contd)*. String Quartet (**Silvio Lazzari**) by the Station Quartet. 9.15—Press Review and News Bulletin.
9.30—Organ Recital, relayed from the Church of Sainte-Clothilde. Extracts from "L'orgue mystique" (Charles Tournemire).

POZNAŃ (Poland)

896 kc/s (335 m.); 1.9 kW.
Transmits at intervals from 11.45 a.m.
6.50 *p.m.*—Miscellaneous Items and Announcements. 7.15—*English Lesson on Linguaphone Records*. 7.30—Topical Talk. 7.45—8.15—See *Warsaw*.
8.15—Sonata for Horn and Pianoforte (Beethoven). 8.45—Vocal Recital. 9.15—Musical Interlude.
9.30—Song Recital by Mme. Stafanja Marynowicz-Madejowa (Soprano). In the intervals: Theatre Guide and Local Announcements. 10.0—11.5—See *Warsaw*. 11.5—Time Signal, Sports Notes and Police Report.

PRAGUE (Czechoslovakia)

614 kc/s (488.6 m.); 120 kW.
Transmits at intervals from 11.0 a.m.
4.10 *p.m.*—Orchestral Concert, relayed from *Bratislava*. 5.10—Russian Lesson. 5.25—Reading. 5.35—Programme for Children. 5.45—Talk: The Education of Children. 5.55—Variety Music on Gramophone Records. 6.5—Agricultural Report. 6.15—Talk for Workers. 6.25—German Transmission: News and Talk: Matrimonial Rights. 7.0—Two Talks. 7.20—See *Brno*. 8.55—News Bulletin. 9.0—Time and News.
9.5—Tchaikovsky Song Recital by Otakar Marak of the National Theatre.
9.30—String Quartet in D Minor, Op. 76, No. 2 (Haydn). 10.0—Time and News. 10.15—Miscellaneous Announcements. 10.20 — Variety Music on Gramophone Records.

RADIO-SUISSE ROMANDE (SOTTENS) (Switzerland)

743 kc/s (403 m.); 25 kW.; *Lausanne*, 442 kc/s (680 m.); and *Geneva*, 395 kc/s (760 m.).
Transmits at intervals from 12.30 p.m.
4.31 *p.m.* (from *Geneva*)—Orchestral Concert, conducted by Robert Echenard. 6.0 (from *Lausanne*)—Programme for Children. 6.30 (from *Lausanne*)—Light Music on Gramophone Records. 7.30—Programme of Popular Music on Gramophone Records. 7.55—Announcements. 8.0 (from *Geneva*)—Talk: The Work of the Disarmament Conference. 8.10—(from *Geneva*)—Tenor Song Recital by Yves Tinayre.
8.30 (from *Geneva*)—Concert by the Station Orchestra, conducted by Fernand Closset, with Marie Panthès in a Recital of Chopin's Pianoforte Works, relayed from the Conservatoire.
9.30 (approx.)—Orchestral Concert of Light Music, conducted by Robert Echenard. 10.0—Weather Forecast and News Bulletin. 10.10—Orchestral Concert (contd.). 10.30 (approx.)—Close Down.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche (1RO). 680 kc/s (441 m.); 50 kW. Relayed by *Naples*, 941 kc/s (319 m.) and 2RO, 11,810 kc/s (25.4 m.).
8.15—8.30 *a.m.*—Giornale Radio and Announcements. 12 *noon*—Gramophone Concert of Variety Music. In the intervals at 12.45 *p.m.*—Weather, at 1.15—GiornaleRadio and Exchange and at 1.30—Time and News. 2.0—5.0—No Transmission. 5.0—Exchange, Programme for Children, Giornale Radio and Announcements. 5.30—Relay from the Royal Philharmonic Academy or Vocal and Instrumental Concert from the Studio. In the interval, Giornale dell'Enit. 6.55 (from *Naples*)—Shipping News and Sports Notes. 7.0—Agricultural Report, Weather, Announcements, Giornale Radio and Press Review. 8.0—Time, News and Gramophone Concert of Variety Music. 8.45—Sports Notes and Announcements.
9.0 — **Orchestral Concert conducted by Arrigo Pedrollo.** Soloist: Tito Schipa (Tenor). 10.0—Fashion Review.
10.10—*Orchestral Concert*. Soloists: Ruggiero (Tenor), Dina d'Elio (Soprano), and C. Restano (Hawaiian Guitar). Selection (Abraham). Tenor Solo: Uocchie belle (Falvo). Soprano Solo: Carcioffola (di Capua). Waltz, Dolores (Waldteufel). La donna mia (Mendes-Sarai). Hawaiian Guitar Solos: (*a*) Hawaiian Song (Restano), (*b*) Tango, Amparita (Cramer). Soprano Solo: Piccolo Edelweiss (Sassoli). Tenor Solo from "White Horse Inn" (Benatzky). Mondo magnifico (Culotta). Soprano Solo: Come la neve (Mascheroni). Tenor Solo from "White Horse Inn." Selection (Stolz). Hawaiian Guitar Solos: (*a*) Berceuse de Jocelyn (Godard), (*b*) The Two Friends (Cramer). Foxtrot, Lirica in blue (Escobar).
12.55 *a.m.* (*Tuesday*)—News.

SCHENECTADY (U.S.A.)

General Electric Company (WGY). 700 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,530 kc/s (31.48 m.); and by W2XAD on 15,340 kc/s (19.56 m.).
Transmits at intervals from 11.45 a.m.
8.30 *p.m.*—Woman's Radio Review from *New York*. 9.0—Book Chat. 9.15—Chester Vedder (Baritone). 9.30—Wrigley Programme from *New York*. 9.45—Musical Ad Men. 9.55—News Items. 10.0—Stock Reports and Police Notices. 10.15—11.0—*New York* Relay. 10.15—Skippy. 10.30—Sweetheart Programme. 10.45—Musical Programme. 11.0—DeWitt Clinton Orchestra. 11.30—Music Weavers. 12 *midnight* (WGY only)—New Kenmore Orchestra. 12 *midnight* (W2XAF only)—Stock Reports and News Items.
12.15 *a.m.* (*Tuesday*)—4.0—*New York* Relay. 12.15—Campbell's Orchestra. 12.30—Prince Albert Quarter Hour. 12.45—Trials of the Goldbergs. 1.0—Soconyland Sketch. 1.30—Voice of the Firestone. 2.0—A & P Gypsies. 2.30—Parade of the States. 3.0—National Radio Forum. 3.30—Mr. Bones and Company. 4.0—Arm Chair Chats. 4.15—John Albright (Crooner). 4.30—DeWitt Clinton Orchestra. 5.0—Gordie Randall's Orchestra. 5.30—New Kenmore Orchestra. 6.0 (approx.)—Close Down.

SCHWEIZERISCHER LANDESSENDER (BEROMÜNSTER) (Switzerland)

653 kc/s (459 m.); 60 kW.; *Basle*, 1,229 kc/s (244.1 m.); and *Berne*, 1,220 kc/s (246 m.).
12.28 *p.m.*—Time Signal from *Neuchâtel* Observatory. 12.30—Weather Forecast and News. 12.40—Light Music on Gramophone Records. 1.35—Weather Report and Exchange Quotations. 1.45—3.30—Interval.
3.30—Concert by the Station Orchestra. 4.0—Concert on Gramophone Records: Nature and the Animal World, as depicted in Music. 5.0—(from *Berne*)—Nature Talk for Children. 5.30—Weather Report 5.35—6.30—Interval.
6.30—Gramophone Concert of French Operatic Music. 7.0 (from *Berne*)—Talk: Modern French Drama. 7.20 (from *Berne*)—Review of Memorable Events. 7.28—Time Signal and Weather Report. 7.30 (from *Berne*)—Talk: The Railway in its Infancy.
8.0 (from *Zürich*)—Concert of Military Music, conducted by Brändli. 8.45 (approx.)—Reading.
9.8 (approx.)—Mozart Concert by the Station Orchestra, conducted by Hermann Hofmann. Soloists: Mimi Lang (Vocalist), and Walter Lang (Pianoforte). 10.0—Weather Report and News Bulletin. 10.15 (approx.)—Close Down.

STOCKHOLM (Sweden)

Radiotänst (SASA). 689 kc/s (436 m.); 55 kW. Relayed by *Boden*, 244 kc/s (1,229.5 m.); *Göteborg*, 932 kc/s (322 m.); *Hörby*, 1,166 kc/s (257 m.); *Motala*, 222.5 kc/s (1,348 m.); *Östersund*, 389 kc/s (770 m.); and *Sundsvall*, 554 kc/s (542 m.).
Transmits at intervals from 7.20 a.m. (Gymnastics and Service).
5.0 *p.m.*—Programme of Hunting Stories and Folk-Music relayed from *Östersund*. 5.45—Variety Music on Gramophone Records. 6.45—*Elementary English Lesson*, relayed from *Jönköping*, 1,490 kc/s; (202 m.). 7.15—Weather and News. 7.30—Parliamentary Review. 7.50—The Practical Corner.
8.10—**Military Band Concert, conducted by Sigfrid Ekström. March, American Salute (Austin). Hungarian Fantasia, Der Dorflump (Hubay). Selection from "Das Veilchen vom Montmartre" (Kálmán). Lyric Piece (Salwén). Waltz, An Evening in Seville (Ohlsen). Italian Songs (arranged Pupilla).**
9.15—Talk on Political Economy.
9.45—Weather and News. 10.0—Talk on Sport.
10.20—*Light Music*. Overture, "Pique Dame" (Suppé). Waltz, Traumideale (Fucik). Pizzicato-Serenade, Pierrette (Brase). Potpourri, Sie hören jetzt (Dostal).
11.0 (approx.)—Close Down.

STRASBOURG (France)

Radio-Strasbourg (PTT). 869 kc/s (345 m.); 11.5 kW.
11.30 *a.m.*—*Gramophone Concert*. Overture, "Cavalleria rusticana" (Mascagni). Scènes alsaciennes (Massenet). Hungarian Czardas (Barthet). Selection from "Les Dragons de Villars" (Maillart). Largo (Kouznezoff). Rythmes délaissés (Dalcroze). Selection from "Faust" (Gounod). A Doll's Wedding March (Lecocq). Bells across the Meadows (Ketelbey). Should I? (Brown).
12.45 *p.m.*—News in French and German. 1.0—Time Signal.
1.2—*Gramophone Concert*. Overture, "Czar and Carpenter" (Lortzing). Fantasia, Islamey (Balakirev). Selection from "Les Cloches de Corneville" (Planquette). Selection from "Louise" (Charpentier). Selection from "Thaïs" (Massenet). Nocturne from "A Midsummer Night's Dream" (Mendelssohn). Pastorale from "L'Arlésienne" (Bizet). Two Selections (Wagner): (*a*) Träume, (*b*) Schmerzen. Larghetto (Händel).
4.45—Talk in French on the occasion of the Goethe Centenary: Goethe and Alsace.
5.0—*Dance Music*. Foxtrot, Keep smiling. Slow Foxtrot, I don't know why. Tango, Little Elisa. Foxtrot, Waiting for You. Slow Foxtrot; I found a million dollar Baby. Waltz, When the Moon comes over the Mountains. Foxtrot, With my Guitar and You. Rain. Emperor Waltz (Johann Strauss). Rumba. Foxtrot, Crazy Stomp. Foxtrot, Funny that way. Tango, O Signorina. Foxtrot, Let me keep on dreaming. Slow Foxtrot, Manhattan. Foxtrot, Was it a Dream? Onestep.
6.0—Talk in French: Emerson.
6.15—Topical Review in German.
6.30—*Orchestral Concert*, conducted by Maurice de Villers. Overture, Weihe des Hauses (Beethoven). Ballet Music from "Rosamunde" (Schubert). Minuet in D (Mozart). Selection from "La Favorita" (Donizetti). Rhapsody, No. 14 (Liszt). Rakoczy March (Liszt).
7.30—Time Signal. 7.31—News in French and German.
7.45—*Orchestral Concert*, conducted by M. Roskam. Soloists: Mme. Barzange (Songs), M. Roskam (Cello), Mlle. de Vendeville (Songs), M. Mourier (Songs) and M. Grégoire (Violin). March (Pelloud). Sunshade Waltz (Aubry). Le plus joli rêve (Arezzo). Overture, "The Bohemian Girl" (Balfe). Aria from "Grisélidis" (Massenet). Selection from "I Pagliacci" (Leoncavallo). 'Cello Solo from "Le roi d'Ys" (Lalo). Duet from "Grisélidis" (Massenet). Violin Solo: Cavatina (Raff). Selection (Kalkman). Selection (Zeller). Waltz, Les Cascades (Brasseur). March (Penso).
8.55 — **Concert, conducted by Charles Strony,** relayed from the Palais du Conservatoire. Jupiter Symphony (Mozart). Concerto (Ravel). Variations for Strings (Delune-Händel). Scherzo (Mendelssohn). Ballad in F for Pianoforte and Orchestra (Fauré). Classical Symphony (Prokofiev). 11.0 (approx.)—Close Down.

STUTTGART (MÜHLACKER) (Germany)

Süddeutscher Rundfunk. 832 kc/s (360.5 m.); 60 kW. Relayed by *Freiburg*, 527 kc/s (570 m.).
Transmits at intervals from 6.0 a.m. (Time, Weather and Gymnastics).
10.0 a.m.—*Chopin Concert on Gramophone Records*. Berceuse. Mazurka in F Major. Mazurka in D Major. Pianoforte Concerto, Op. 11 in E Minor. Potpourri for Two Pianofortes and Full Orchestra.
11.0—11.15—News Bulletin.
12 *noon*—*Orchestral Concert of Dances*, conducted by Gustav Görlich. German Dances (Hasenöhrl). Czardas from "Der Geist des Wojewoden" (Grossmann). Bohemian Polka from "Schwanda, the Piper" (Weinberger). Two Slovakian Dances (Felber). Spanish Waltz, Torero (Translateur). Serbian Dance (Gal). Waltz, Wiener Blut (Strauss).
12.50 *p.m.*—Time, News, Programme Announcements and Weather.
1.0—*Gramophone Records of Edith Lorand and her Orchestra*. Marche miniature (Kreisler). Syncopation (Kreisler). Old Viennese Melodies (Pollack). Selection from "L'Africaine" (Meyerbeer). Old Irish Song, Londonderry Air. Plantation Songs (Powell). Tes yeux (Bonincontro). Appassionatemente (Rulli). The Missouri Waltz (Knight-Logan). Two Selections (Ziehrer): (*a*) In der Heimat der Tulpen, (*b*) Waltz, Hereinspaziert (Ziehrer). The Blue Danube (Johann Strauss). Wiener Burger (Ziehrer). Dorfkinder (Kálmán).
1.55—News Bulletin.
2.0—Sponsored Concert. 2.30—Elementary Spanish Lesson. 3.0—*Elementary English Lesson*. 4.0—Talk: The Good Old Times—Mother and Child. 4.30—Talk: Grave and Gay from the Life of an Actor.
5.0—Concert from *Munich*. 6.15—Time and Agricultural Notes. 6.25 (from *Mannheim*)—Talk: The Produce Exchange. 6.50—10.10—See *Frankfurt*. In the interval at 7.15—Time and Weather. 10.10—Weather, News and Programme Announcements. 10.30—Advanced Chess Lesson.
10.45—Concert from Munich. 12 *midnight* (approx.)—Close Down.

TOULOUSE (France)

Radiophonie du Midi. 779 kc/s (385 m.); 8 kW.
Transmits at intervals from 12.45 p.m.
5.0 *p.m.*—Picture Transmission.
5.15—*Opera Music*. Selections from "Don Pasquale" (Donizetti), "The Tales of Hoffmann" (Offenbach), and "Oberon" (Weber).
5.30—News Bulletin. 5.45—Orchestral Selections. 6.0—Light Music.
6.15—Selections by an Argentine Orchestra. 6.30—News and Exchange.
6.45—*Opera Concert*. Entr'actes from "Carmen" (Bizet). Selection from "Madame Butterfly" (Puccini). Songs from (*a*) "The Magic Flute" (Mozart), (*b*) "Héroïdiade" (Massenet) and (*c*) "The Fair Maid of Perth" (Bizet).
7.15—Accordion Solos. 7.30—North African News. 7.45—*Military Music*. Overture, "William Tell" (Rossini). March (Voigt). 8.0—*Songs from Operas*. Selections from "Madame Butterfly" (Puccini) and "Manon" (Massenet). 8.15—Operetta Music.
8.30—*Lincke Programme*. Amina. The Glow Worm Idyll. Verschmähte Liebe. Waltz. 8.45—Sound Film Music. 9.0—Viennese Concert. 9.30—Sponsored Concert.
10.0—*Operatic Song Recital*. Cavatina from "Norma" (Bellini). Aria from "Aida" (Verdi). Aria from "Sigurd" (Reyer). 10.15—Selections by an Argentine Orchestra.
10.30—News Bulletin.
11.0—*Concert*. Un boussi de valso (Cayla). Ne partons pas d'ici (Cayla). Chanson du cornemuseur (Chailler). Waltz from "The Count of Luxembourg" (Lehár). Selection from "L'Africaine" (Meyerbeer). Overture, "Poet and Peasant" (Suppé). Selection from "William Tell" (Rossini). Prologue to "I Pagliacci" (Leoncavallo). Aria from "La Tosca" (Puccini). Selection from "Mignon" (Thomas). In the interval at 11.15—North African News. 12 *midnight*—Weather, Announcements and Close Down.

TRIESTE (Italy)

Ente Italiano Audizioni Radiofoniche. 1,211 kc/s (247.7 m.); 10 kW.
Transmits at intervals from 8.15 a.m.
7.10 *p.m.*—Quintet Concert. 8.0 till Close Down.—See *Turin*.

TURIN (Italy)

Ente Italiano Audizioni Radiofoniche. 1,096 kc/s (273.7 m.); 7 kW. Relayed by *Milan*, 905 kc/s (331.5 m., and *Genoa*, 959 kc/s (312.8 m.).
Transmits at intervals from 8.15 a.m.
7.10 *p.m.*—Concert of Light Music on Gramophoné Records. In the interval at 7.30—Time Signal and Programme Announcements. 8.0—Giornale Radio and Weather Report.
8.15—*Popular Music*. Overture in Italian Style (Schubert). Siegfried Idyll (Wagner). Eventide (Criscuolo). Foxtrot, Elizabeth (Katscher).
9.0—See Rome.
10.0 — A *Comedy* (to be announced).
11.0—Giornale Radio and Close Down.

VIENNA (Austria)

Radio-Wien. 581 kc/s (517 m.); 15 kW. Relayed by *Graz*, 852 kc/s (352.1 m.); *Innsbruck*, 1,058 kc/s (283 m.); *Klagenfurt*, 662 kc/s (453.2 m.); *Linz*, 1,220 kc/s (246 m.), and *Salzburg*, 1,373 kc/s (218 m.).
Transmits at intervals from 7.0 a.m. (Election Results).
5.0 p.m.—*Concert of Light Music* by the Max Geiger Orchestra. Overture, "Il Guarany" (Gomes). Waltz (Geiger). Potpourri of the Works of Mozart (Urbach). Slavonic Dances, Nos. 6 and 8 (Dvorák). Ballet Suite (Popy). Waltz (May). Marching Song (Althoff). Potpourri of Jazz Tunes (Dostal).
6.15—Talk: The Care of National Monuments. 6.40—Dramatic Criticism, by Ernst Lothar. 7.0—Talk: Reference Books and Aids to the Week's Talks. 7.5—Notes on the Broadcasts for Schools. 7.10—*English Lesson*. 7.35—Time Signal, Weather Report and Programme Announcements.
7.45—Wagner Concert by the Vienna Symphony Orchestra, conducted by Oswald Kabasta. Soloist, Friedrich Schorr (Baritone). Overture, "The Flying Dutchman." Baritone Solos: (*a*) Blick' ich umher, from "Tannhäuser," (*b*) Wotan's Song from "The Rhinegold." Prelude to "The Mastersingers." Baritone Solo: Hans Sachs' Monologue from "The Mastersingers." The Ride of the Valkyries, from "The Valkyries." Wotan's Farewell, and the Fire Music from "The Valkyries."
8.50—Jenö Hubay Concert by the Vienna Symphony Orchestra, conducted by the Composer. Soloists: Gertrude Rünger (Contralto), and Christa Richter (Violin). Overture, "The Violin-Maker of Cremona." Biedermeier-Suite, Op. 116. Violin Solo: Hungarian Rhapsody (Liszt-Hubay). Three Songs, with Orchestral accompaniment: (*a*) Ende September, (*b*) Die Tränen, (*c*) Schnee bedeckt schön die Berge. Ballet Music from "The Mask."
10.20—News, Weather Report and Announcements. 10.35—Dance Music by the Stern Orchestra, with Vocal Refrains by Ernst Schön, relayed from the Grabencafé.

WARSAW (Poland)

Polskie Radio. 212.5 kc/s (1,411 m.); 120 kW.
11.20 *a.m.*—Aviation Weather Report. 11.25—Interval. 11.45—Press Review. 11.58—Time Signal; Bugle Call from the Tower of St. Mary's Church, *Cracow*.
12.5 *p.m.*—Programme Announcements. 12.10—Light Music on Gramophone Records. 1.20—Weather Report. 1.25—Interval. 1.35—Light Music on Gramophone Records. 1.55—2.45—Interval.
2.45—Popular Music on Gramophone Records. 3.5—Economic Report and Exchange Quotations. 3.15—Traffic and Transport Notes. 3.25—Talk on History. 3.45—Hydrographic Report. 3.50—Talk on History. 4.10—Light Music on Gramophone Records. 4.30—Elementary French Lesson. 4.40—Light Music on Gramophone Records. 5.10—Talk (to be announced).
5.35—Concert of Light Music. 6.50—Miscellaneous Items. 7.15—Agricultural Notes. 7.25—Programme Announcements. 7.30—Sports Notes. 7.35—Popular Music on Gramophone Records. 7.45—Radio Journal. 8.0—Talk on Music.
8.15—Concert of Jewish Religious and Popular Music by the Choir of the Great Synagogue, conducted by A. Davidovicz. Soloists: Cantor Bornstein (Tenor) and Lichtermann-Davidovicz (Pianoforte). 9.45—Reading. **10.0—Railway Bands Competition** relayed from the Grand Theatre. After the Relay, Radio-Journal, Weather and Police Report, followed by Dance Music relayed from the Café Adria. 12 *midnight* (approx.)—Close Down.

WILNO (Poland)

533 kc/s (563 m.); 16 kW.
Transmits at intervals from 11.58 a.m.
6.50 *p.m.*—Sports Notes. 7.0—Talk in Lithuanian. 7.20—Talk: "The Influence of the Sea." 7.40—Programme Announcements. 7.45—See *Warsaw*. 12 *midnight* (approx.)—Close Down.

TUESDAY (April 26)

PRINCIPAL EVENTS

SYMPHONY CONCERTS

8.30 p.m. Berlin (Witzleben), Königs Wusterhausen: Brahms.
8.0 „ Bucharest.
8.40 „ Huizen: Violin Concerto (Brahms), etc.

CONCERTS (Vocal and Instrumental)

6.10 p.m. Budapest: Opera orchestra.
8.0 „ Oslo: Concert in memory of Björnson.
8.0 „ Schweizerischer Landessender: Choral and orchestral.
8.0 „ Stockholm.
8.30 „ Copenhagen: Choral.
8.45 „ Rome.
9.25 „ Vienna: Popular Programme.

OPERAS AND OPERETTAS

8.15 p.m. Warsaw: "The Swallows" (Herblay).
8.30 „ Langenberg: "Siegfried" (Wagner), Act I.
8.45 „ Italian stations (Northern): "Paganini" (Lehár).

CHAMBER MUSIC

9.15 p.m. (approx.) Budapest: Clarinet Quintet (Brahms), etc.
9.45 „ Stuttgart, Frankfurt: String Quartets.
10.25 „ (approx.) Leipzig: Dresden String Quartet.

RECITALS

10.0 p.m. Hilversum: International song.
10.30 „ Berlin (Witzleben), Königs Wusterhausen, other German stations, Vienna: Richard Tauber.

PLAYS AND TALKS

8.10 p.m. Heilsberg: "Seemannsballade" (Ringelnatz).
8.45 „ Radio-Paris: "John D. Conquers The World" (Wolff).

DANCE MUSIC

11.5 p.m. Copenhagen (till 12.30).
11.5 „ Stuttgart, Frankfurt (till 12).

Salome's Dance

The dreadful story of Salome has attracted artists of almost every order throughout the ages, but none has realised the grim horror of the tragedy with the intensity with which Strauss' music sets it before us. His one-act music-drama was written to a German version of Oscar Wilde's French play, and appeared in Dresden at the end of 1905. Strauss himself calls the work not an Opera but a Drama, and it is the orchestra, rather than the voices, which describes and accentuates the emotions and incidents set before us on the stage. The central point of the whole work is a purely orchestral passage, the Dance of the Seven Veils, which is included in STOCKHOLM's programme this evening, and even those who dislike the work as a whole have always agreed that this is as fine a piece of orchestral tone-painting as even Strauss has ever given us. At first Salome stands motionless while the musicians begin a wild dance-rhythm; then, rising to her full height, she signs to them and at once their playing is subdued to glide into a sinuous rhythm eloquently descriptive of her snake-like movements. The main body of the dance is in waltz measure, and grows more and more in frenzy as Salome throws from her, one after another, the seven veils covering her beauty, to cast herself, at the end, prostrate at Herod's feet.

Paganini
(see Turin, 8.45 p.m.)

The Father of Russian Music

Russian music has formed so large a share of the concert programmes of the whole world for the past two generations that it is difficult to realise how recent a growth it is. But, except for folk music, in which it always was specially rich, Russia had no music of its own, broadly speaking, until Glinka founded the national school which has since given us so much that we value and enjoy. *A Life for the Czar*, his first opera, which was also the first real Russian opera, was produced in 1836 and immediately made it clear that a new Russian school of music had been born. The story is on a patriotic subject, dealing with a revolt by the people against their sovereign, which is eventually overcome. His next opera, *Russlan and Ludmilla*, based on one of Pushkin's poems, is a rather strange mixture of fairy lore and Russian legend. Ludmilla has three suitors, of whom she prefers the knight Russlan. She is carried off by magic powers, and the whole story is taken up with Russlan's heroic overcoming of one dread spell after another to win his bride in the end. The overtures to both operas are included in the programme which HAMBURG Station broadcasts to-night.

NATIONAL

	kc/s.	m.	kW.
London:	1,148	261.3	50
Daventry:	193	1,554.4	30
Northern:	995	301.5	50

10.15 *a.m.*—The Daily Service.
10.30—Time Signal (Greenwich); Shipping Forecast.
10.45—11.0—"New Ways for Hard Times"—XVII.
12 *noon*—Reginald Foort at the Organ.
1.0—Time Signal (Greenwich).
1.0 *p.m.*—Leonardo Kemp and his Piccadilly Hotel Orchestra.
1.55—Experimental Transmission by by the Fultograph Process.
2.5—Nature Study. Mr. Eric Parker: "Round the Countryside"—II.
2.25—Interval.
2.30—Music. Sir Walford Davies: "Key-note as Starting-point and Goal."
3.35—French. Monsieur E. M. Stéphan and Mademoiselle Coustenoble: "Early Stages in French"—
4.0—A Light Concert. The Edinburgh Studio Orchestra, directed by Guy Daines.
4.30—The Grosvenor House Orchestra, directed by Joseph Meeus.
4.45—Time Signal (Greenwich).
5.15 (Daventry)—The Children's Hour.
5.15 (London and Northern)—The B.B.C. Dance Orchestra.
6.0—"The First News."
6.30—Time Signal (Greenwich).
6.30—The Foundations of Music. Handel's Pianoforte Music.
6.50—French Talk. Monsieur E. M. Stéphan: Reading—Daudet.
7.20—Operatic Programme. Eileen Hannevig (Soprano), Horace Stevens (Baritone). The B.B.C. Orchestra (Section D), conducted by Charles Webber.
8.20—"Artists at Work"—III. "Etching and Engraving"—A dialogue between Mr. Stanley Casson and Mr. Henry Rushbury.
9.0—Time Signal (Greenwich).
9.0—"The Second News."
9.15—Shipping Forecast; New York Stock Market Report.
9.20—Serenade. The B.B.C. Orchestra (Section E).
10.30—12 *midnight*—Dance Music.
11.30—Time Signal (Greenwich).

REGIONAL

	kc/s	m.	kW.
London:	842	356.3	50
Midland:	752	398.9	25
Northern:	626	479.2	50

10.15 (London and Northern)—The Daily Service.
10.30—11.0 (London and Northern)—Daventry National Programme.
11.30—12 *noon* (London)—Experimental Television Transmission (Baird Process).
12 *noon*—A Ballad Concert. The Wimbush Pianoforte Trio. Bert Brown (Baritone), John Sowerby (Violoncello), Gwen Holroyd (Soprano).
1.0—Gramophone Records.
1.15—A Pianoforte Recital by Edward Isaacs.
2.0—3.0—The Midland Studio Orchestra.
4.0 (London)—Daventry National Programme.
4.0 (Northern)—Evensong, relayed from York Minster, York.
5.15—The Children's Hour.
6.0—"The First News."
6.30—Regional Bulletin for Farmers.
6.35 (London)—The Wireless Military Band, conductor, B. Walton O'Donnell. Sascha Lasserson (Violin).
6.35 (Midland)—The Midland Studio Orchestra. Irene Bonas (Soprano).
6.35 (Northern)—The Studio Orchestra. Sydney Wright (Violoncello).
7.30 (Midland)—A Chamber Music Concert. The Unity Quartet: Paul Beard (1st Violin), Ernest Element (2nd Violin), Frank Venton (Viola), Johan Hock (Violoncello).
7.40 (Northern)—Mr. Maurice A. R. Horspool: "Licensed Piracy off the N. E. Coast."
8.0 (London)—The Commodore Grand Orchestra.
8.0 (Northern)—A Recital of Manx Songs by May Clague (Soprano).
8.15 (Northern)—The Besses o' the Barn Band, conducted by F. Royle.
9.0—"There are Crimes and Crimes"—A Comedy by August Strindberg. Adapted for broadcasting by Dulcima Glasby.
10.30—"The Second News."
10.50—12 *midnight* (London and Northern)—Dance Music.

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)

825.3 kc/s (363.3 m.); 13 kW.
Transmits at intervals from 12.30 p.m.
7.10 *p.m.*—Financial Notes and Exchange Quotations. 7.20—Weather Forecast and Shipping Report. 7.25—Instrumental Concert. 7.55—News and Time Signal. 8.0—Instrumental Concert (contd.). 8.25—Song Recital. 9.0—Concert of Oriental Music with Commentary. 9.55—*Tourist Talk in English: Algeria.*
10.0 (approx.)—Close Down.

BARCELONA (Spain)

Radio-Barcelona (EAJ1). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 8.30 a.m.
8.0 *p.m.*—*Concert by the Station Trio.* Novelette No. 1 (d'Ambrosio). Selection from "Déjanire" (Saint-Saëns). 'Cello Solo (Popper). Minuet from the Second Sonata Op. 49 (Beethoven).
8.30—Exchange Quotations and Programme for Women. 9.0—Request Gramophone Records, and News Bulletin. 10.0—Chimes, Weather Forecast and Exchange Quotations, followed by Relay of Foreign Stations. 10.30—Concert of Light Music by the Station Orchestra. 11.0—Talk on Astronomy. 11.15—Literary and Musical Programme—Modern Spanish Music.
11.45—*French Music by the Station Orchestra.* Suite from "Les Erynnies" (Massenet). Two Arabesques (Debussy).
12.30 *a.m.* (*Wednesday*)—Dance Music by the "Melody Boys," relayed from the Excelsior Dance Hall.

BELGRADE (Yugoslavia)

697 kc/s (430.4 m.); 2.5 kW.
Transmits at intervals from 11.0 a.m.
4.0 *p.m.*—Light Music on Gramophone Records. 4.30—Concert by the Station Orchestra. 5.30—Beauty Hints. 6.55—Programme Announcements. 7.0—Czech Lesson. 7.30—Popular Music on Gramophone Records.
8.30—Chamber Music from *Zagreb*, 977 kc/s (307 m.). 10.30—News and Sports Notes. 10.50—Concert relayed from the "Moskva" Café.

BERLIN (Germany)

Königs Wusterhausen. 183.5 kc/s (1,635 m.); 60 kW.
Transmits at intervals from 5.45 a.m.
12.5 *p.m.*—French for Schools: Spring in the Forest of Rambouillet; followed by Symphony in E Flat Major (Mozart) (on Gramophone Records); and Weather for Farmers.
12.55—Nauen Time Signal. 1.30—News Bulletin. 2.0—Gramophone Concert from *Berlin* (*Witzleben*). 3.0—Talk for Young People. 3.30—Weather Forecast and Exchange Quotations. 3.45—Talk for Women: How to make a Handkerchief Sachet. 4.30—See *Leipzig*. 5.30—Talk: Vocational Prospects Abroad for German University Students. 6.0—Programme for Workers: We compose Melodies. 6.30—Talk: The Great Religions of the East and West. 6.55—Weather for Farmers, followed by *Advanced English Lesson.* 7.20—Talk on Contemporary Problems: Anti-Semitism? 8.0—Talk on World Politics. 8.30—10.45—See *Berlin* (*Witzleben*).
10.45—Part Relay of the Russian Concert from Hamburg. 12 *midnight* (approx.)—Close Down.

BERLIN (Germany)

Witzleben. 715 kc/s (419.5 m.); 1.5 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics and Gramophone Concert).
6.20 *p.m.*—A Discussion by Students: Is it only the Extreme Parties which are Radical? 6.55—"The Witzleben Station informs its Listeners. . . ."
7.0—Topical Talk. 7.10—Concert of Light Music from the "Traube Weinrestaurant." 7.55—Labour Market Report. 8.0—Topical Programme.
8.30—Brahms Concert, by the Berlin Wireless Orchestra, conducted by Max Fiedler. Tragic Overture, Op. 81. Double Concerto for Violin and 'Cello, in A Minor, Op. 102. The Fourth Symphony, in E Minor, Op. 98. 10.10—News Bulletin.
10.30—Relay from the Atrium Cinema: Richard Tauber in Songs from his Latest Sound Film "The Melody of Love."

BORDEAUX-LAFAYETTE (France)

(PTT.) 986 kc/s (304 m.); 13 kW.
Transmits at intervals from 12 noon.
7.30 *p.m.*—News and Exchange Quotations. 7.40—Talk: The Tailors' Guild. 7.55—Lottery Results. 8.0—Topical Talk. 8.15—News Bulletin and Weather Report. 8.30—Comedy Programme. After the Programme, Bordeaux Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)

1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 11.0 a.m.
6.40 *p.m.*—German Lesson. 7.0—See *Prague*. 10.15—Programme Announcements. 10.20—Concert of Popular Music, relayed from Café Baross.

BRESLAU (Germany)

923 kc/s (325 m.); 1.5 kW. Relayed by *Gleiwitz*, 1,184 kc/s (253 m.).
Transmits at intervals from 6.30 a.m.
6.5 *p.m.*—Book Review. 6.20—Programme for Women. 6.45—Talk: Organic Mechanism.
7.10—Weather Forecast, followed by Concert of Modern Classical Music on Gramophone Records.
7.55—Weather Report. 8.0—Popular Music by the Station Orchestra, conducted by Franz Marszalek, with the collaboration of Robert Koppel.
9.0—News Bulletin. 9.10—From the Sahara to Breslau—Musical Sequence, arranged by Walter Mehring, and conducted by Franz Marszalek.
10.10—Time Signal, Weather, News, Sports Notes and Programme Announcements. 10.30—See Berlin (Witzleben). 10.50—Talk: The Progress of Women in the Tennis World. 11.10—See *Leipzig*. 12 *midnight* (approx.)—Close Down.

BRNO (Czechoslovakia)

878 kc/s (342 m.); 35 kW.
Transmits at intervals from 10.30 a.m.
6.0 *p.m.*—Topical Talk. 6.15—Programme for Workers. 6.25—German Transmission: News, Agricultural Report, Talk and Reading.
7.0—See *Prague*. 10.15—Announcements. 10.20—See *Prague*.

BRUSSELS (Belgium) (No. 1)

I.N.R. 590 kc/s (509 m.); 15 kW.
12.15 — 1.45 *p.m.* — Weather and

Gramophone Concert. Ave Verum (Mozart). Scherzo from the Quartet, No. 1 (Rimsky-Korsakov). Fourteen Rollicking Sailors (Sarony). My brother makes the Noises for the Talkies (Amberg). Tango, O cara mia (Brodszky). Foxtrot, Oh, Glory (Robin). Six-eight, When the Guards are on Parade (Sarony). Tango Foxtrot, Oh, Rosalita (Llossas). Intermezzo Caprice (Smith). Polka, Nachtigalls Morgengruss (Recktenwald). Selection from "A Waltz Dream" (O. Straus). Saxophobia (Wiedoeft). Waltz, Erica (Wiedoeft). March of the Camellias (Volant). Potpourri of Old French Songs. Offenbach Potpourri (Urbach). Milonga . . . Porque Lloras? (Cadicamo). Por la Pinta (Franco). Melodious Memories (Finck). Good-night, Sweetheart (Noble). My Sunshine is you (Stolz). Grieg Potpourri (Urbach).

5.0—*Manfred Concert*, conducted by Arthur Meulemans, arranged by the Belgian Catholic Radio Society. Sport Champions. Potpourri of Students' Songs. Paraphrase on La Paloma. Jours d'autrefois. Waltz, Vive la vie. Baby Parade. Les Petits Gamins. Un rêve de Carnaval. Tête Droite.

5.45—Children's Programme, arranged by the Belgian Catholic Radio Society. 6.20—Variety Music on Gramophone Records. 7.15—Catholic News Bulletin. 7.30—Programme for Women.

8.0—*Orchestral Concert*, conducted by Arthur Meulemans. Overture, "Zampa" (Hérold). Selection from "La Vie Parisienne" (Offenbach). Il rêve, mon Pierrot (Ackermans). Marche funèbre d'un Hanneton (Dubois). Old Vienna (Drdla). Bruissement sous bois (Razigade). The Sewing Machine (Limenta). A Spring Festival in Old Japan (Popy). Potpourri (Morena). Gramophone Records: (*a*) Ombra Leggiera (Meyerbeer), (*b*) Aria from "The Barber of Seville" (Rossini). Rustic Revels (Fletcher). Rendezvous (Alletter). Two Dances (Finck). Gramophone Records: (*a*) Two Arias from "Les Noces de Jeannette" (Massé), (*b*) Selections from "Les Dragons de Villars" (Maillart). Waltz, Tenderness (Waldteufel). In the interval at 8.45—Talk: The Youth of To-day. 10.0—Le Journal Parlé.

BRUSSELS (Belgium) (No. 2)

N.I.R. 887 kc/s (338.2 m.); 15 kW. Programme in Flemish.

12.15—1.45 *p.m.*—Weather and Variety Concert on Gramophone Records.

5.0—*Orchestral Concert*, conducted by Jean Kumps. Spreewaldmarsch (Lincke). Bolero de Concert (Vievien). Evening Bells (Walter). Pizzicato et Saltarelle (Hubans). Pour un baiser (Sudessi). Selection from "Miss Helyet" (Audran) Gavotte des Baisers (Popy). Orchestral Suite (Clausman). 5.45—Programme for Children.

6.30—*Gramophone Concert.* Selection from "Die Fledermaus" (Johann Strauss). March, The Archduke Albert (Komzák). 7.15—Talk: For and Against Birth Control. 7.30—Sports Talk.

8.0—*Concert by the Station Tea Room Orchestra*, conducted by Jean Kumps with Humorous Items by Frans Lamoen. March, Semper Fidelis (Sousa). Waltz, Jeunesse dorée (Waldteufel). Two Songs in Italian by Costa Miltona: (*a*) Santa Lucia (Wattoz), (*b*) Vieni sul mar (Bilderi). Selection from "Le Petit Duc" (Lecocq). Frans Lamoen in Items from his Repertoire. "De Vuurtoren"—Radio Play. Waltz from "Die geschiedene Frau" (Fall). Selection from "The Countess Maritza" (Kálmán). Frans Lamoen in Items from his Repertoire. Romanian Potpourri (Dauber). Waltz, The Blue Danube (Johann Strauss). 10.0—Le Journal Parlé.

BUCHAREST (Romania)

Radio-Bucarest. 761 kc/s (394 m.); 12 kW.

Transmits at intervals from 12 noon.

5.0 *p.m.*—Concert of Light Music and Romanian Music by the Motoi Orchestra. 6.0—News and Time Signal. 6.10—Concert (contd.). 7.0—Talks on Literature and Language. 7.40—Light Music on Gramophone Records.

8.0—*Symphony Concert*, conducted by Michel Jora. Symphonic Rhapsody (Sibiano). The Brandenburg Concerto, No. 5 (Bach). 9.0—Talk (to be announced). 9.15—*Concert (contd.).*—Third Symphony (Schumann). 9.45—News Bulletin and Close Down.

BUDAPEST (Hungary)

545 kc/s (550 m.); 18.5 kW.

Transmits at intervals from 9.15 a.m. Also relayed on 210 m. from 7.45 p.m.—12 *midnight.*

6.10 p.m.—**Concert** by the Royal Hungarian Opera House Orchestra, conducted by Otto Berg. Overture, "Titus" (Mozart). Selection from "Rosamunde" (Schubert). Selection from "Un Bal costumé" (Rubinstein). Hungarian Dance (Farkas). Selection from the Nutcracker Suite (Tchaikovsky). Fantasia (Poldini).

7.25—French Lesson. 7.45—Variety Programme.

9.0—Talk: Wind Instruments, followed by Concert by the Melles Hungarian String Quartet, with Imre Dubos (Clarinet). String Quartet in D Major (Haydn). Clarinet Quintet (Brahms).

10.40—News, followed by Gramophone Dance Music.

COPENHAGEN (Denmark)

1,067 kc/s (281 m.); 0.75 kW. Relayed by *Kalundborg*, 260 kc/s (1,153 m.).

Transmits at intervals from 7.30 a.m.

11.0 *a.m.*—Weather Forecast. 11.10—Fish Market Prices. 12 *noon*—Time and Chimes from the Town Hall. 12.2 *p.m.*—String Ensemble Concert, conducted by Leonard Gyldmark relayed from the Palace Hotel. 2.0—3.0—Interval.

3.0—*Orchestral Concert, conducted by Emil Reesen.* Soloist: Willy Reitsch (Violin). Overture, "Hans Heiling" (Marschner). Waltz, Carmen Sylva (Ivanovici). Ballet Music from "William Tell" (Rossini). Song and Dance from "Acuarelas Valencianas" (Chavarri). Norwegian Rhapsody, No. 2 (Svendsen). Violin Solos: (*a*) Méditation from "Thaïs" (Massenet), (*b*) Moment musical (Schubert), (*c*) Waltz (Kuhlau), (*d*) Spiccato (Bohn), (*e*) Zephir (Hubay). Overture, "Prinz Methusalem" (Joh. Strauss). Perpetuum mobile (Joh. Strauss). Selections (Palmgren): (*a*) Svanen, (*b*) Selection from "Gluntarne." Minuet and Gavotte from "Manon" (Massenet). Tarantella from the Gipsy Suite (Edward German).

5.0—Programme for Children. 5.40—Exchange and Fish Market Prices. 5.50—Talk on Bishop Skat Rordam. 6.20—German Lesson for Beginners. 6.50—Weather Forecast. 7.0—News Bulletin. 7.15—Time Signal. 7.16—Discussion: Who is to blame for the Financial Crisis?

8.30—Choral Concert. Die Ehre Gottes in der Natur (Beethoven). Heilig, heilig (Schubert). Baritone Solo: Die Rose stand im Tau (Schumann). Wiegenlied (Brahms). Tenor and Baritone Duet: Schlechte Besserung (Zuccalmoglio). Die rote Nase (Wofram).

9.0—Programme of Norwegian Literature and Music. 10.0—*Old German Cembalo Music — Pianoforte Recital by Folmer Jensen.* Selections (J. Jacob Froberger): (*a*) Toccata in G Minor, (*b*) Variations on the Folk Song "Auf die Mayerin." 10.15—News and Announcements. 10.35—Orchestral Concert of French Suites, conducted by Launy Gröndahl. Suite for Orchestra (Saint-Saëns). Suite of Children's Pieces, La Nursery (Inghelbrecht). Suite, Le tombeau de Couperin (Ravel).

11.5—Dance Music from Nimb's Restaurant. In the interval at 12 *midnight.*—Time and Chimes from the Town Hall. 12.30 *a.m.* (*Wednesday*)—Close Down.

CRACOW (Poland)

959 kc/s (312.8 m.); 1.5 kW.

Transmits at intervals from 11.45 a.m.

6.50 *p.m.*—Miscellaneous Items and Announcements. 7.10—Talk: Romania and its Inhabitants. 7.25—Programme Announcements. 7.30—Light Music on Gramophone Records. 7.45—10.15—See *Warsaw.* 10.15—Answers to Correspondents and Announcements. 10.40 — Dance Music. 12 *midnight* (approx.)—Close Down.

DUBLIN (Ireland)

(2RN) 725 kc/s (413 m.); 1.2 kW. Relayed by *Cork*, 1,337 kc/s (224.4 m.).

1.30 *p.m.*—Time Signal, Weather Forecast, Stock Report and Light Music on Gramophone Records. 2.0—6.0—Interval. 6.0—Popular Music on Gramophone Records. 6.15—Programme for Children. 7.0—Light Music on Gramophone Records. 7.15—News Bulletin, and British Market Report. 7.30—Time Signal. 7.31—Leigheacht Gaedhilge. 7.45—Talk on Swift.

8.0—Haydn Quartet by the Station String Quartet. 8.30—Talk on the Spring Show by E. Bohane. 8.45—Tenor Solos by Patrick Kirwan. 9.0—Violin Solos by Una Kenny. 9.15—Soprano Solos by Hilda White. 9.30—Sponsored Programme. 10.30—Time Signal, News, Weather Forecast and Close Down.

FÉCAMP (France)

Radio Normandie. 1,364 kc/s (219.9 m.); 10 kW.

Transmits at intervals from 12 noon.

7.30 *p.m.* — Popular Gramophone Music. 7.45—Announcements. 8.0 News Bulletin. 8.30—Le Havre Chronicle. 8.45 (from *Le Havre*)—Concert by the Damais String Quartet.

11.0—1.0 *a.m.* (*Wednesday*)—Variety Concert. 1.0 *a.m.* (approx.)—Close Down.

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.5 kW. Relayed by *Cassel*, 1,220 kc/s (246 m.).

Transmits at intervals from 6.0 a.m.

6.15 *p.m.*—Economic Notes. 6.25—Talk: The Art of Growing Old. 6.50—See *Stuttgart.* 7.15—Time, Programme Announcements, Weather and Economic Notes. 7.30—10.20—See *Stuttgart.* 10.20—Time, Weather, News and Sports Notes. 10.40—12 *midnight*—See *Stuttgart.* 12 *midnight* (approx.)—Close Down.

HAMBURG (Germany)

Norag (ha, in Morse). 806 kc/s (372 m.); 1.5 kW. Relayed by *Bremen*, 1,112 kc/s (270 m.); *Flensburg*, 1,373 kc/s (218 m.); *Hanover*, 530 kc/s (566 m.) and *Kiel*, 1,292 kc/s (232.2 m.).

Transmits at intervals from 5.45 a.m.

6.30 *p.m.*—Talk: The Precious Metals of India and their Economic Importance. 6.55—Exchange Quotations and Market Prices. 7.0—Topical Talk. 7.15—Weather Report.

7.20 (from *Hanover*)—*Orchestral Concert*, conducted by Otto Ebel von Sosen. Four Selections (H. Mouton): (*a*) A Sunny Morning on the Water, (*b*) Melancholy Serenade, (*c*) Evening Dreams, (*d*) A Village Festival. Shepherds' Idyll for Flute (Köhler). Mädels und Burschen (Clemus). Four Selections (Dvorak). Idyllen-Walzer (Johann Strauss). Festung der Bauern durch das Dorf (Ludwig Schytte).

8.30—Emil Belzner reads from his own Works. Introductory talk by Dr. Max Sidow.

9.0—Russian Concert, by the Norag Orchestra, conducted by José Eibenschütz. Soloist: Irmgard Grippain-Georges (Pianoforte). *Part I.* Overture, "Russlan and Ludmilla" (Glinka). Ukranian Rhapsody for Pianoforte and Orchestra (Liapounov). The Musical Box (Liadov). Elegy, Waltz and Finale from the Serenade in C Major for String Orchestra (Tchaikovsky). *Part II. Russian Folk Melodies by Olga Milosch and the Norag Male Voice Choir.* Overture, "His Life for the Czar" (Glinka). Kamarinskaja—Fantasia on two Russian Songs (Glinka). Russian Folk Song, The Red Sarafan. Easter Overture (Rimsky-Korsakov). Three Russian Folk Songs. Polovtsian Dances from "Prince Igor" (Borodin). Russian Folk Songs for Male Voice Choir (arr. Scheffler). Male Voice Choir Selections: (*a*) Stenka Razin, (*b*) Song of the Volga Boatmen. 1812 Overture (Tchaikovsky). 10.0 (in an interval)—News.

HEILSBERG (Germany)

1,085 kc/s (276.5 m.); 60 kW. Relayed by *Danzig*, 662 kc/s (453.2 m.).

Transmits at intervals from 6.30 a.m.

11.30 a.m.—Concert by the Little Orag Orchestra, conducted by Eugen Wilcken. Overture, "Marinarella" (Fucik). Waltz Intermezzo, Liebesszene (Gungl). Golden Dreams (Murzilli). Selection from "Hoheit tanzt Walzer" (Ascher). Dorfschwalben aus Oesterreich (Joseph Strauss). Musica proibita (Gastaldon). Mattinata (Leoncavallo). Potpourri, Ein Fünf-Uhr Tee bei Robert Stolz. March, Semper vivum (Lercher). 1.20 *p.m.*—News Bulletin.

1.30—2.30—*Gramophone Concert.* Overture, "Oberon" (Weber). Two Selections (Weber): (*a*) Hier im irdischen Jammertal, (*b*) Schweig, schweig. Two Selections (Weber): (*a*) Und ob die Wolke sie verhülle, (*b*) Leise, leise, fromme weise. Two selections for Male Voice Choir (Silcher): (*a*) In der Ferne, (*b*) Frisch gesungen. Wohlauf noch getrunken (Schumann). Two Selections (Schubert): (*a*) Moment musical, (*b*) Marche militaire. 'Cello Solo: Chanson villageoise (Popper). Seid umschlungen Millionen (Strauss).

3.30—Musical Programme. 4.0—Talk: The History of Trashy Literature. 4.30—See *Leipzig.* 5.30—Talk: Do you speak German? 5.45—Review of Books. 6.15—Market Prices. 6.30—Talk for Workers. 7.0—Suite in C Sharp Minor for String Quartet (Möhring). 7.40—Weather Forecast. 7.45—Reading of Arno Holz Poems on the Poet's Sixty-Ninth Birthday.

8.0—*Concert by the Little Orag Orchestra* conducted by Eugen Wilcken. Overture, "Si j'étais roi" (Adam). Selection from "The Land of Smiles" (Lehár). Zigeuner Sehnsucht (Niklas-Kempner). Es war einmal ein Zigeuner (Einegg). Waltz, Roses from the South (Johann Strauss). Spanish Sketches (Börschel). Entry March of the Gladiators (Fucik).

9.0—Announcements. 9.10—"Seaman's Ballad"—Radio Play (Joachim Ringelnatz). 10.15 (approx.)—News Bulletin.

HILVERSUM (Holland)

1,004 kc/s (298.8 m.); 8.5 kW.

7.25 *a.m.*—12.40 *p.m.*—Programme of the Workers' Radio Society (V.A.R.A.).

7.25—7.40 and 8.10—8.25 *a.m.*—Physical Culture Programme. 8.40—Variety Music on Gramophone Records. 9.40—10.40—Quintet Concert conducted by Sam Metz, with Variety Music on Gramophone Records. 10.55—Quintet Concert for Workers conducted by Sam Metz, with Recitations by Kees Bakker and Songs by Leo Fuld. Joseph van Geens at the Pianoforte.

12.40—5.10 *p.m.*—Programme of the Algemeene Vereeniging Radio Omroep (A.V.R.O.). 12.40—Time Signal.

12.41—*Concert by the Wireless Orchestra* conducted by Nico Treep. Overture, "Poet and Peasant" (Suppé). Ballet Music from "Faust" (Gounod). Waltz, Gross Wien (Johann Strauss). Piedmontese Dance No. 21 (Sinigaglia). Variety Music on Gramophone Records. Selection from "Waltzes from Vienna" (arr. Korngold). Jungle Drums (Ketelbey). Morena y Sevillana (Maduro). Selection from "The Drum-Major's Daughter" (Donizetti). Moss Rose (Bosc). Einzug der Hellebardiere (Blankenburg).

2.25—Popular Music on Gramophone Records. 2.40—Concert by Kovacs Lajos and his Orchestra with Songs by Bob Scholte. 3.40—Dressmaking Lesson. 4.40—Variety Music on Gramophone Records.

5.10 till Close Down—V.A.R.A. Programme.

5.10—*Pianoforte Recital* by Johan Jong. Fantasia (Sweelinck). Little Toccata (Sweelinck). Tambourin (Rameau). Musette and Rondeau (Rameau). Minuet (Rameau). L'Egyptienne (Rameau).

5.40—Septet Concert conducted by Is Eyl, with Variety Music on Gramophone Records. 7.25—News Bulletin.

7.40—*Concert by "The Four Serenaders"* (*Accordionists*). March, Mit Standarten (von Blon). Tango, Sira. Foxtrot, Sing you sinners. Waltz, Mein Herz hab' ich gefragt (Abraham). Foxtrot, My golden Baby (Abraham). Tango, Seit jener Stunde (Stransky). Foxtrot (Sarony). Selection from "The Flower of Hawaii" (Abraham). Das ist die Liebe der Matrosen (Heymann).

8.10—"*The Minister has been assassinated*"—Play (Ebermayer).

9.25—*Orchestral Concert* conducted by Hugo de Groot. Overture, "Djamileh" (Bizet). Valse triste (Berger). Spanish Dances (Moszkovsky). Liszt Fantasia (Urbach).

10.0—International Song Recital by Henri Marchand. Johan Jong at the Pianoforte. *Part I. French Songs.* Le roi a fait battre tambour. Bergerette, Plaisir d'amour ne dure qu'un moment. *Part II. English Songs.* Mad Willie. Temple Bells (Woodforde-Finden). *Part III. German Songs.* Der Tod von Basel. Tokayerlied—Popular Hungarian Song.

10.40—*Orchestral Concert (continued).* Spanish March, Zaragozana (Filipucci). Serenade, Among the Flowers (Mascheroni). By the Blue Waters of Minnetonka (arr. Lange). Tango, In Old Seville (Rosen). Blue Flame (Grofé). Waltz, Weine nicht, Mütterlein (Meisel). Selection from "The Flower of Hawaii" (Abraham).

11.25—News Bulletin. 11.40—Variety Music on Gramophone Records. 12.40 *a.m.* (*Wednesday*)—Close Down.

HUIZEN (Holland)

160 kc/s (1,875 m.); 8.5 kW.

Programme of the Catholic Radio Society (K.R.O.).

8.40—9.55 *a.m.*—Gramophone Records of Light Music. 10.40—Variety Music on Gramophone Records. 12.10 *p.m.*—Religious Address. 12.40—Police Notes.

12.55—*Trio Concert.* Rakoczy March. Die Familie (E. Strauss). Waltz, Moonlight on the Alster (Fetras). Ideale (Tosti). Selection from "Il Trovatore" (Verdi). Melody (Rubinstein). Selection from "Countess Maritza" (Kálmán). Espanjade (Alex). Waltz, Donauwellen (Ivanovici). Nocturne (Field). Heut' muss es sein! (Erwin).

2.25—Gramophone Records of Popular Music. 2.40—Programme for Women. 3.40—Lessons in Dressmaking and Millinery. 4.40—5.5—Interval. 5.5—Intermediate Dressmaking Lesson.

5.40—*Choral Concert.* Popular Song (Mendelssohn). O wie wunderschön ist die Frühlingszeit (Abt). Die lustigen Tyroler (Simon). May Song (de Lange). The Blue Danube (Joh. Strauss). Spring (v. Tusschenbroek). Selection from "Samson and Delilah" (Saint-Saëns). Chanson à la lune (Dalcroze).

7.50—Talk: The Indians and the Esquimaux. 8.10—Police Notes. 8.25—Talk.

8.40—Orchestral Concert conducted by Johan Gerritsen. Soloist: Andries Roodenburg (Violin). Overture, "The Marriage of Figaro" (Mozart). Concerto in D Major for Violin and Orchestra (Brahms). Prelude to "Hansel and Gretel" (Humperdinck). Suite, Aus Holbergs Zeit (Grieg). Violin Solos: (*a*) Arietta (Bosmans), (*b*) Malaguena (Sarasate), (*c*) Spanish Dance (Falla). Overture, "Le roi l'a dit" (Delibes). Selection from "Manon Lescaut" (Puccini). Air from "Samson and Delilah" (Saint-Saëns). Prelude to the Third Act of "Carmen" (Bizet). Selection from "Die toten Augen" (d'Albert). In the interval at 9.55—News.

11.40—*Concert.* Waltz, The Whirlwind (Mattei). Overture, "Casanova" (Lincke). Two Hungarian Dances Nos. 5 and 6 (Brahms). Fantasia, Suppé-Illusionen (Michaelov). Potpourri of Russian Waltzes, Rund um die Wolga (Borchert). Serenata (Tarenghi). Spanish Cigány Dance (Marquina). 12.40 *a.m.* (*Wednesday*)—Close Down.

KALUNDBORG (Denmark)

Kalundborg Radio. 260 kc/s (1,153 m.); 7.5 kW.

See *Copenhagen.*

KATOWICE (Poland)

734 kc/s (408 m.); 16 kW.

Transmits at intervals from 11.58 a.m.

5.35 *p.m.*—Symphony Concert. 8.15—"*The Swallows*"—Operetta (Herblay) relayed from *Warsaw.* 10.40—Dance Music.

LAHTI (Finland)

167 kc/s (1,796 m.); 54 kW. Relayed by *Helsinki*, 815 kc/s (368.1 m.).

Transmits at intervals from 7.10 a.m.

6.15 *p.m.*—Talk (to be announced). 6.40—Violin Recital by Olavi Väntinen. 7.5—News Bulletin. 7.30—Concert by the Station Orchestra. Soloists: Edvin Bäckman (Vocalist). Relayed from the Conservatoire de Music. 8.45—News and Close Down.

LANGENBERG (Germany)

Westdeutscher Rundfunk. 635 kc/s (473 m.); 60 kW.

Transmits at intervals from 6.45 a.m. (Exercises, Weather, Time and Gramophone Concert).

12 *noon*—Part Relay of a Concert from *Stuttgart.* 12.20 *p.m.*—Sponsored Gramophone Concert. 12.50—Weather, News and Time Signal.

1.0—*Concert conducted by Eysoldt.* Soloist: Cläre Hansen (Soprano). Prelude to "The Cricket on the Hearth" (Goldmark). Suite, Poetic Moods (Dvorak). Hindu Song from "Sadko" (Rimsky-Korsakov). The Flight of the Bumble Bee (Rimsky-Korsakov). Songs for Soprano. Verdi's Triumphs—Potpourri on the Works of Verdi (Weninger). Waltz, Ball bei Hof

(Ziehrer). Songs: (*a*) Caro mio ben (Giordano), (*b*) Magic Moon (Humphries). Czardas from "Der Geist des Wojewoden" (Grossmann). Italian Songs (Micheli).
3.30—Economic Notes and Time Signal. 3.50—Programme for Children—Stories about the Railway. 4.10—Notes on the Broadcasts for Schools. 4.20—Talk on the Building Industry. 4.40—Review of Books on Natural Science.
5.0—*Concert of Operetta Music and Waltzes*, conducted by Eysoldt. Overture, "The Gipsy Baron" (Strauss). Waltz, The Skaters (Waldteufel). Selections from "Where the Lark sings" (Lehár). Waltz, Hofballtänze (Lanner). Selection from "The Merry Peasant" (Fall). Waltz from "Zigeunerprimas" (Kálmán). March from "The Count of Luxembourg" (Lehár).
6.15—Talk by Dr. Alfons Paquet: German Destiny as mirrored in German Towns—Frankfurt-am-Main.
6.40—Agricultural Talk. 7.0—Weather, Time, Economic and Sports Notes. 7.15—Wireless Notes. 7.30—Review of World Industry. 7.55—First General News. 8.0—"From the Flute to the Kettledrum," by Hans Ebert.
8.30—The First Act of "Siegfried"—Opera (Wagner). 10.0—News and Silent Night.

LEIPZIG (Germany)

1,157 kc/s (259 m.); 2 kW. Relayed by *Dresden*, 941 kc/s (319 m.).
Transmits at intervals from 6.30 a.m.
4.30 *p.m.*—*Concert by the Leipzig Symphony Orchestra*, conducted by Theodor Blumer. Overture, "Medea" (Cherubini). Antique Suite for Orchestra, Op. 81 (Schroeder). Selections from "Die Fledermaus" (Johann Strauss). Gipsy Scenes from "The Fair Maid of Perth" (Bizet). Hymn and Triumphal March from "Aida" (Verdi).
5.30—Weather, Time and Economic Notes. 6.30—French Lesson. 6.50—Talk (to be announced). 7.0—"*Three Young People*"—a Radio Scene (Walter Gebhardt).
7.30—*Operetta Concert by the Leipzig Symphony Orchestra*, conducted by Hilmar Weber. Soloists: Lisa Hettmann (Soprano) and Walter Kathammer (Tenor). Overture, "Der dumme August" (Rudi Gfaller). Selections from "The Maid of the Black Forest" (Jessel). Waltz from "Die Tanzgräfin" (Stolz). Selections from "Love in the Snow" (Benatzky). Selections from "The Bayadere" (Kálmán).
9.0—Economic Notes. 9.10—"Handicrafts"—a Sequence of German Poems by Alfred Günther. 10.10—News.
10.25 (approx.)—Concert by the Dresden String Quartet.—String Quartet, Op. 38 (Julius Klaas). String Quartet, No. 2, Op. 28 (Kert Kern). 11.30 (approx.)—Close Down.

LJUBLJANA (Yugoslavia)

522 kc/s (574.7 m.); 2.5 kW.
Transmits at intervals from 11.30 a.m.
5.30 *p.m.*—Reading. 6.0—Quintet Concert. 7.0—German Lesson.
7.30—Talk on the History of Art. 8.0—Talk on Electricity. 8.30—Chamber Music, relayed from *Zagreb*, 977 kc/s (307 m.). 10.30—Time and News Bulletin.

LWÓW (Poland)

788 kc/s (381 m.); 16 kW.
Transmits at intervals from 11.45 a.m.
6.50 *p.m.*—Miscellaneous Items. 7.15—Talk: Means of Communication in Olden Days. 7.30—See *Warsaw*.
7.35—Light Music on Gramophone Records. 7.45—See *Warsaw*. 10.15—Answers to Correspondents. 10.30—See *Warsaw*. 10.40—Dance Music from the Szkocka Café. 12 *midnight* (approx.)—Close Down.

LYONS (France)

La Doua (PTT). 644 kc/s (465.8 m.); 1.5 kW.
Transmits at intervals from 8.0 a.m.
7.0—*Popular Music on Gramophone Records*. Selections from: (*a*) "La Belle Hélène" (Offenbach), (*b*) "Nina Rosa" (Romberg), (*c*) "La Cocarde de Mimi Pinson" (Goublier). (*d*) "Rose Marie" (Friml), (*e*) "The Count of Luxembourg" (Lehar), (*f*) "Orpheus in the Underworld" (Offenbach), (*g*) "Countess Maritza" (Kalman).
7.30—Radio Gazette for Lyons and the South-East. 8.30—Variety Programme.

MADRID (Spain)

Union Radio (EAJ7). 707 kc/s (424.3 m.); 2 kW.

TUESDAY continued

Transmits at intervals from 9.0 a.m.
8.0 *p.m.*—Chimes, Exchange, Market Prices and Request Gramophone Concert. In the interval at 8.30—Talk by Joaquín España Cantos.
9.15—News and Political Review.
9.30—10.0—Interval. 10.0—French Lesson on Gramophone Records.
10.30—Chimes, Time, Political Review and Opera Selection on Gramophone Records: "*Il Trovatore*" (Verdi). 12.45 *a.m.* (*Wednesday*)—News Bulletin. 1.0 (approx.)—Chimes and Close Down.

MILAN (Italy)

Ente Italiano Audizioni Radiofoniche. 905 kc/s (331.5 m.); 7 kW.
See *Turin*.

MORAVSKÁ-OSTRAVA (Czechoslovakia)

1,137 kc/s (263.8 m.); 11 kW.
Transmits at intervals from 11.0 a.m.
7.0 *p.m.*—See *Prague*. 10.15—Programme Announcements and Theatre Guide. 10.20—See *Prague*.

MOSCOW (Russia)

Trades Union. 230.1 kc/s (1,304 m.); 100 kW.
Transmits at intervals from 5.0 a.m.
4.0 *p.m.*—Proletariat Radio Journal. 5.0—Peasants' Radio Journal. 6.0—Programme to be announced.
8.0—Talk in Dutch and French: The Ninth Soviet Trades Union Congress. 9.55—Chimes and Close Down.

MUNICH (Germany)

563 kc/s (533 m.); 1.5 kW. Relayed by *Augsburg* and *Kaiserslautern*, 536 kc/s (560 m.), and *Nürnberg*, 1,256 kc/s (239 m.).
Transmits at intervals from 6.45 a.m.
6.15 *p.m.*—Weather and Agricultural Report. 6.25 (from *Nürnberg*)—Talk: Gustavus Adolphus in Franconia, Swabia and Bavaria. 6.45—Talk: The Fundamental Characteristics of German Art. 7.5—French Lesson.
7.30—Provincial Programme—Ingolstadt, relayed from the Municipal Theatre, *Ingolstadt*. Military Band, conducted by Borchardt. Belgrade March. Radetzky March (Joh. Strauss, Sen.). Dialogue: Ingolstadt at the Present Time. Selection from "Oberon" (Weber). Dialogue: The Cultural Life of Ingolstadt. March, Königgrätzer (Piefke). Selections from "Coppélia" (Delibes). An Interview with Ingolstadt's Woman Parachutist, Lisl Schwab. March, Erzherzog Albrecht (Komzak). Waltz, The Blue Danube (Joh. Strauss). Talk: Konrad Dreher and the Theatre. Bayerischer Defilier-Marsch (Scherzer).
9.0—Orchestral Concert. 10.0—A Dialogue. 10.20—Time and News.

OSLO (Norway)

Kringkastingselskapet, 277 kc/s (1,083 m.); 60 kW. Relayed by *Fredriksstad*, 816 kc/s (367.6 m.); *Hamar*, 536 kc/s (560 m.); *Notodden*, 671 kc/s (447.1 m.); *Porsgrund*, 662 kc/s (453.2 m.), and *Rjukan*, 671 kc/s (447.1 m.).
Transmits at intervals from 11.10 a.m.
6.0 *p.m.*—Talk for the Housewife.
6.30—Talk: Gardening in the Spring
6.45—Accordion Solos of Popular Music. 7.0—Announcements, Weather and News. 7.30—*English Lesson*.
8.0—Time Signal.
8.2—Björnstierne Björnson Centenary Celebrations. The Philharmonic Orchestra, conducted by Olav Kielland and Recitations. 9.40—Weather and News. 10.0—Topical Talk. 10.15—Recitations from the Works of Björnson. 10.45 (approx.)—Close Down.

PALERMO (Italy)

Ente Italiano Audizioni Radiofoniche. 554 kc/s (542 m.); 3 kW.
Transmits at intervals from 12.45 p.m.
5.30 *p.m.*—Programme for Women.
6.0—Light Music on Gramophone Records. 6.30—8.0—Interval. 8.0—Agricultural Notes and Giornale Radio. 8.20—Light Music on Gramophone Records. 8.30—Time Signal and News.
8.45—Concert of Chamber Music. Soloists: V. Mannino (Pianoforte), Romilda Padova (Soprano), Sistina Lojacono (Violin) and Gagliano ('Cello). Pianoforte Solos: (*a*) Dance Op. 32 (Prokofiev), (*b*) Fire Dance (Falla). Soprano Solos: (*a*) The Violet (Mozart), (*b*) Two Songs (Savasta). Violin Solos: (*a*) Largo (Veracini-Corti), (*b*) Chanson Louis XIII and Pavane (Couperin-Kreisler). 'Cello Solo: Symphonic Variations (Boëllmann).
9.40—Comedy in One Act (Alberto Casella).
10.10—*Concert (contd.)* Violin Solos: (*a*) Andante from the Spanish Symphony (Lalo); (*b*) Spanish Dance (Granados-Kreisler). Soprano Solos: (*a*) L'Ora Divina (Tirindelli), (*b*) April Serenade (De Curtis). Sonata in F Sharp Minor for Pianoforte and 'Cello (Martucci).
10.55—News and Close Down.

PARIS (France)

Eiffel Tower (FLE). 207.5 kc/s (1,445.7 m.); 13 kW. Time Signals (on 2,650 m.) at 10.26 *a.m.* and 11.26 *p.m.* (preliminary and 6-dot Signals).
Transmits at intervals from 1.0 p.m.
6.45 *p.m.*—Dramatic Programme.
7.0—Le Journal Parlé. 8.20—Weather Report.
8.30—*Concert arranged by the Composers' Society*. Soloists: Lydie Demirgian (Violin), Monique Haas (Pianoforte), and Isa Sterly (Songs). Sonata for Violin and Pianoforte (Reinach). Songs: (*a*) Swans and (*b*) Carillons (Perrier). Scherzo from the String Quartet in C Minor (André-Bloch). Three Fables for Voice and Pianoforte (Régnier, Music by Borchard), the Composer at the Pianoforte. String Quartet (Tony-Aubin).

PARIS (France)

Poste Parisien. 914 kc/s (328.2 m.); 1.2 kW.
Transmits at intervals from 12 noon.
6.45 *p.m.*—News and Announcements.
7.0—Light Music on Gramophone Records, Talk and News. 7.30—Concert of Popular Music on Gramophone Records. 8.30—Gramophone Records, Talk and News.
8.45—*Vocal and Orchestral Concert*. Overture, "La Perle du Brésil" (David). Liebeslieder walzer (Brahms). Ballade for Pianoforte and Orchestra (Fauré). Symphonic Variations for 'Cello and Orchestra (Boëllmann). Symphonic Poem, Le Rouet d'Omphale (Saint-Saëns). Aquarelles (Le Borne). Nocturne and Petite Valse (Tchaikovsky). Kazachok (Dargomijsky).
10.45—News Bulletin. 10.50 (approx.)—Close Down.

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TUESDAY
continued

PARIS (France)

Radio-Paris (CFR). 174 kc/s (1,725 m.); 75 kW.

6.45 *a.m.*—Physical Culture Course. 7.30—Weather Report and Physical Culture (contd.). 7.45—Light Music on Gramophone Records. 8.0—News Bulletin, Weather Report and Press Review.

12.30 *p.m.*—*Concert of Operatic Music on Gramophone Records.* Overture, "Iphigenia in Aulis" (Gluck). Air from "Don Pasquale" (Donizetti). Air from "William Tell" (Rossini). Overture, "Fra Diavolo" (Auber). Selections from "La Sonnambula" (Bellini). Selections from "La Basoche" (Messager). Selections from "Rip van Winkle" (Planquette). Overture, "Bluebeard" (Offenbach). In the intervals at 1.0—Exchange Quotations, News and Weather; at 1.30—Exchange, and at 2.0—Exchange and Announcements.

3.45—Market Prices and Exchange. 4.20—*Elementary English Lesson.* 6.30—Market Prices, Weather, Agricultural Report and Racing Results. 7.0—Theatre Review. 7.15—Talk on Art: Is Modern Art representative of Modern Life? 7.30—*Advanced English Lesson.* 7.45—Review of the British Press, Commercial Prices and News.

8.0 — Variety Programme — "The Popular Cabaret." 8.30—News and Weather Report. 8.40—Topical Review by Miguel Zamaçois.

8.45 — "John D. Conquers the World"—Radio Play (Wolff), by Louis Seigner and his Company. In the interval at 9.15—Press Review and News.

PRAGUE (Czechoslovakia)

614 kc/s (488.6 m.); 120 kW.

Transmits at intervals from 10.30 a.m.

4.10 *p.m.*—Orchestral Concert from *Bratislava.* 5.10—German Transmission: Talk by Dr. Siebenschein. 5.25—Talk. 5.35—Programme for Children. 5.45—Talk on Social Science. 5.55—Variety Music on Gramophone Records. 6.5—Agricultural Report. 6.15—Talk for Workers. 6.25—German Transmission: Talk on Archaeology. 7.0—News. 7.5—Talk. 7.20—Brass Band Concert.

8.20—**Haydn Concert.** 9.0—Time Signal. 9.2—Orchestral Concert, conducted by Parik. 10.0—Time and News. 10.15—Miscellaneous Announcements. 10.20—Variety Music on Gramophone Records.

RADIO-SUISSE ROMANDE (SOTTENS) (Switzerland)

743 kc/s (403 m.); 25 kW.; *Lausanne*, 442 kc/s (680 m.); and *Geneva*, 395 kc/s (760 m.).

Transmits at intervals from 12.30 p.m.

6.0 *p.m.* (from *Lausanne*)—Light Music on Gramophone Records. 7.0 (from *Neuchâtel*)—Talk by Robert Chable. 7.30 (from *Lausanne*)—German Lesson. 7.55—Announcements. 8.0 (from *Geneva*)—Talk: The Work of the Disarmament Conference. 8.10 (from *Geneva*)—Talk arranged by the International Labour Office.

8.20 (from *Fontainemelon, Neuchâtel*)—Choral Concert. 9.0—Concert by the Station Orchestra, conducted by Fernand Closset. 10.0—Weather and News Bulletin. 10.15 (from *Lausanne*)—Answers to Correspondents. 10.30 (approx.)—Close Down.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche (1RO). 680 kc/s (441 m.); 50 kW. Relayed by *Naples*, 941 kc/s (319 m.), and 2RO, 11,810 kc/s (25.4 m.).

8.15—8.30 *a.m.*—Giornale Radio and Announcements. 12 *noon*—Gramophone Records of Light Music. 12.35 *p.m.*—Weather.

12.45—*Vocal and Instrumental Concert.* Soloists: Margherita Cossa (Soprano) and Luisa Carlevarini (Violin). Soprano Solos: (*a*) Il viandante (Pratella), (*b*) A la Barcillunisa (Favaro), (*c*) Seguidilla (Falla). Violin Solos: (*a*) La Précieuse (Couperin-Kreisler), (*b*) Spanish Serenade (Chaminade), (*c*) Scherzo (Dittersdorf). Oriental Suite (Popy). Two Norwegian Dances (Grieg). Lied (Benatzky). Selection from "La donna perduta" (Pietri). Intermezzo, Bambole Lenci (Marcello). Passo doppio (Sarrocchi). In the intervals at 1.15—Giornale Radio and Exchange, and at 1.30—Time and News.

2.0—5.0—No Transmission. 5.0—Exchange, Programme for Children, Giornale Radio and Announcements.

5.30—*Soprano and Baritone Recital from the Works of Mozart* by Virginia Brunetti and G. Castello. Baritone Solo from "The Marriage of Figaro." Soprano and Baritone Duet from "The Marriage of Figaro." Soprano Solo: The Violet. Soprano and Baritone Duet from "Don Giovanni."

5.45—Concert of Light Music. 6.15—Giornale dell' Enit. 6.20—Astronomy Lesson. 6.35—6.55—Interval. 6.55 (from *Naples*)—Shipping News and Sports Notes. 7.0—Morse Lesson, Agricultural Report, Weather, Announcements, Giornale Radio and Press Review. 8.0—Time, News and Gramophone Records of Light Music. 8.30—Sports Notes and Announcements.

8.45—Vocal and Instrumental Concert. Soloist: Anna Stelt (Soprano). Antiche danze ed arie (arr. Respighi): (*a*) Italiano (XVI Century), (*b*) Danze di Corte (XVI Century), (*c*) Siciliana (Besardo), (*d*) Passacaglia (Roncaldi). Soprano Solos (Zandonai): (*a*) Mistero, (*b*) Serenata, (*c*) Aria from "Giuliano." Miniature Fantasia on Popular American Themes (Janssen).

9.30—"I carabinieri"—Comedy in One Act (Lucio d'Ambra).

10.15—*Concert (continued).* Crepuscolo sul mare (Santoliquido). March from the Karelia Suite (Sibelius). Soprano and Mezzo-Soprano Duets from "Zanetto" (Mascagni) by Ofelia Parisini and Tosca Ferroni. Announcements. Soprano and Baritone Duet from "Manon Lescaut" (Puccini). Carnival Scene from "Casanova a Venezia" (Pick-Mangiagalli). 10.55—News Bulletin.

SCHENECTADY (U.S.A.)

General Electric Company (WGY) 790 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,530 kc/s (31.48 m.) and by W2XAD on 15,340 kc/s (19.56 m.).

Transmits at intervals from 11.45 a.m.

8.30 *p.m.*—Woman's Radio Review *from New York.* 9.0—Bridge Lesson. 9.30—Stock Report and Police Notes. 9.45—Studio Ensemble. 9.55—News Items. 10.0—Sonata Programme from *New York.* 10.15—Skippy from *New York.* 10.30—Popular Songs by Billy Ross. 10.45 — Annette McCullough (Crooner) from *New York.* 11.0—Joe and Eddie. 11.15—New Kenmore Orchestra. 11.30—With Gray McClintock in the Canadian Northwest. 11.45 — Sonata Programme. 12 *midnight* (WGY only)—General Electric Programme. 12 *midnight* (W2XAF only) — Stock Reports and News Items.

12.15 *a.m.* (*Wednesday*)—4.0—*New York* Relay. 12.15—Campbell's Orchestra. 12.30—Prince Albert Quarter Hour. 12.45—Trials of the Goldbergs. 1.0—Blackstone Plantation. 1.30—True Story Hour. 2.0—McKesson Musical Magazine.

2.30—Musical Programme. 3.0—Lucky Strike Dance Hour. 4.0—Freddy Engel's Orchestra. 4.30—DeWitt Clinton Orchestra. 5.0—Ralph Kirbery (Baritone), from *New York.* 5.5—Hotel New Yorker Orchestra from *New York.* 5.30—New Kenmore Orchestra. 6.0 (approx.)—Close Down.

SCHWEIZERISCHER LANDESSENDER (BERO-MÜNSTER) (Switzerland)

653 kc/s (459 m.); 60 kW.; *Basle*, 1,229 kc/s (244.1 m.); and *Berne*, 1,220 kc/s (246 m.).

12.28 *p.m.*—Time Signal from *Neuchâtel* Observatory. 12.30—Weather Report and News. 12.40—Concert by the Station Orchestra. 1.35—Weather and Exchange Quotations. 1.45—3.30—Interval.

3.30—Chamber Music on Gramophone Records. 4.0—Concert by the Station Orchestra. 5.0 (from *Zürich*)—Programme for Women. 5.30—Weather Report. 5.35—6.30—Interval. 6.30—Gramophone Concert: Wagner's Orchestral Works, conducted by his Son, Siegfried Wagner. 7.0 (from *Basle*)—Elementary Italian Lesson. 7.28—Time Signal and Weather Report. 7.30 (from *Basle*)—Talk: Romain Rolland.

8.0 (from Berne)—Choral and Orchestral Concert by the Berne Glee Society, Male Voice Choir and Augmented Municipal Orchestra, with Ilona Durigo (Contralto), relayed from the Casino. 9.15 (approx.)—Reading.

9.30—Hermann Löns and his Songs—Recital of Songs to the Lute by Maria Waldner. 10.0—Weather and News. 10.15 (approx.)—Close Down.

STOCKHOLM (Sweden)

Radiotjänst (SASA). 689 kc/s (436 m.); 55 kW. Relayed by *Boden*, 244 kc/s (1,229.5 m.); *Göteborg*, 932 kc/s (322 m.); *Hörby*, 1,166 kc/s (257 m.); *Motala*, 222.5 kc/s (1,348 m.); *Östersund*, 389 kc/s (770 m.), and *Sundsvall*, 554 kc/s (542 m.).

Transmits at intervals from 7.20 a.m. (Gymnastics and Service).

2.50—3.10 *p.m.*—Broadcast for Schools: Talk on Robert Surcouf. 5.0—Programme for Children. 5.30—Talk. 5.45—Popular Music on Gramophone Records. 6.45—Talk in Danish: Henrik Hertz. 7.15—Weather and News. 7.30—Talk for Workers: Swedish Workers To-day.

8.0—Orchestral Concert. Soloist: Karin Branzell (Songs). Overture, "Faust" (Gounod). Introduction to the Second Act of "Der Kuhreigen" (Kienzl). Aria from "La Cenerentola" (Rossini). Dance of the Tumblers from "The Snow Maiden" (Rimsky-Korsakov). Interlude from "Goyescas" (Granados). Waltz from "Eugen Onegin" (Tchaikovsky). Aria from "Prince Igor" (Borodin). Aria from "Il Trovatore" (Verdi). Dance from "Salome" (Richard Strauss). Overture, "Tannhäuser" (Wagner).

9.15—Literary Review relayed from *Göteborg*. 9.45—Weather and News.

10.0—*Concert.* Soloists: Carl Garaguly (Violin) and Fritjof Kjellberg (Pianoforte). Waltz, Frühlingsstimmen (Johann Strauss). Serenade (Haydn). Selection from the Trout Quintet (Schubert). Paraphrase on Strauss Melodies for Violin and Pianoforte (Brosch). In Wien wo der Wein und der Walzer blüht (Stolz). You are my Heart's Delight, from "The Land of Smiles" (Lehár). Möcht wieder einmal in Grinzing sein (Benatzky). Potpourri, Wien bei Nacht (Komzák). 11.0 (approx.)—Close Down.

STRASBOURG (France)

Radio-Strasbourg (PTT). 869 kc/s (345 m.); 11.5 kW.

11.30 *a.m.*—*Gramophone Concert.* Overture, "Le Maschere" (Mascagni). Symphony, No. 6 (Haydn). Selection from "Lilac Time" (Schubert). Moonlight Sonata (Beethoven). Selection from "Salome" (Richard Strauss). Selection from "Miss Decima" (Audran).

12.45 *p.m.*—News in French and German. 1.0—Time Signal.

1.1—*Gramophone Concert.* Overture, "Si j'étais roi" (Adam). Selection from "The Czardas Princess" (Kálmán). Four Selections (Scriabin). Frauenliebe und-Leben (Schumann). Two Selections (Perez). Two Selections (Ganne). Totavia hay Otario (Pizarro). Caminito (Filiberto). 4.45—Legal Talk in German.

5.0—*Orchestral Concert*, conducted by Roskam. Soloist: M. Roskam ('Cello). March, Paris Casino (Sourilas). Waltz (Kollo). Au Moulin (Gillet). Overture, "Princess Rosina" (Lincke). Sérénade à Blanchette (Pelloud). Fantasia, The Triumphs of Verdi (Weninger). 'Cello Solo: Après un rêve (Fauré). Selection from "The Magic Flute" (Mozart). Aria from "L'Amour masqué" (Messager).

6.0—Talk in German. 6.15—Topical Talk in French.

6.30—Saint-Saëns Concert, conducted by Maurice de Villers. Marche Héroïque. Ballet Music from "Henry VIII." Danse macabre. La Jota Aragonesa. Algerian Suite. French Military March.

7.30—Time Signal. 7.31—News in French and German.

7.45—*Zither Recital* by M. Acker. In the intervals, Lucien Weber of the Théâtre Trianon in Items from his Repertoire. March (Arnold). Eros Waltz (Schroeder). Fuyez l'amour (Eighteenth Century) by Lucien Weber. Rondelettes (Darr). Fantasia, Harps and Bells (Schiffel). L'Amour et le Médecin—Poem (Lausnay) by Lucien Weber. Ballade du petit bébé—Poem (Rostand) by Lucien Weber. Tyrolese Music (Meyer).

8.30—Programme by Artistes of the Comédie Francaise, relayed from *Paris.*

10.30 (approx.)—Close Down.

STUTTGART (MÜHLACKER) (Germany)

Süddeutscher Rundfunk. 832 kc/s (360.5 m.); 60 kW. Relayed by *Freiburg*, 527 kc/s (570 m.).

Transmits at intervals from 6.0 a.m. (Time, Weather and Gymnastics).

10.0 *a.m.*—Recital of Songs and Arias by Otto Lillich and H. Lingor. 10.30 (from *Karlsruhe*)—*Sonata Recital* for Violin and Pianoforte. Sonata No. 4 (Mozart). Sonata, Op. 30, No. 2 (Beethoven).

11.0—11.15—News, Weather and Time. 11.45—Sponsored Concert.

12 *noon*—*Concert from "Greiners Grossgaststätten."* March, The Star Spangled Banner (Sousa). Selection from "Schwanda the Piper" (Weinberger). Waltz, Wiener Bonbons (Strauss). Song and Tango, Sehr geschätzes Fräulein Laüra (Jurmann). English Waltz Potpourri. Song and Foxtrot: Kapitän, Kapitän, lass das Schiff nicht untergehn (Buchbinder). Violin Solos from "Paganini" (Lehár). Serenade (Lehár). Overture, "Oberon" (Weber). Hindenburgbau-Marsch (Esterl).

12.50 *p.m.*—Time, News, Programme Announcements and Weather. 1.5—Concert from *Langenberg.* 1.55—News Bulletin. 2.0—Sponsored Gramophone Concert. 2.30—3.0—*Advanced English Lesson.* 4.0—Horticultural Talk. 4.30—Talk for Women: Spring Work in the Household. 5.0—See *Langenberg.* 6.15—Time and Agricultural Notes. 6.25—Talk: A Visit to the Ruthenians 6.50—Talk: The Economic Position of Alsace-Lorraine since the Great War. 7.15—Time and Weather.

7.30—*Concert by the Stuttgart Philharmonic Orchestra*, conducted by Leo Borchard. Overture, "Ruy Blas" (Mendelssohn). Spring (Glazounov). Norwegian Dances (Grieg). Le rouet d'Omphale (Saint-Saëns). Zorahayde (Svendsen). Slavonic Dances (Mracek).

8.45—Variety Programme.

9.45—**The Development of the String Quartet**—V. String Quartet, Op. 41, No. 3 in A Major (Schumann), by the Wendling Quartet. 10.20—News, Time, Programme Announcements and Weather. 10.40—*String Quartet Concert (contd.).* String Quartet, Op. 12 in E Flat Major (Mendelssohn).

11.5—Dance Music by the Dance Ensemble of the Stuttgart Philharmonic Orchestra. 12 *midnight* (approx.)—Close Down.

TOULOUSE (France)

Radiophonie du Midi. 779 kc/s (385 m.); 8 kW.

Transmits at intervals from 12.45 p.m.

5.0 *p.m.*—Picture Transmission. 5.15—*Orchestral Music.* Selection from "Lohengrin" (Wagner). Overture, "Euryanthe" (Weber). 5.30—News Bulletin. 5.45—Dance Music. 6.0—*Operatic Songs.* Arias from "Samson and Delilah" (Saint-Saëns). Arias from "The Valkyries" (Wagner). 6.15—Selections by an Argentine Orchestra. 6.30—News and Exchange. 6.45—Concert of Light Music. 7.15—Overture, Leonora (Beethoven). 7.30—News and Racing Results.

7.45—*Operetta Music.* Selection from "Miss Decima" (Audran). Selection from "Les Cloches de Corneville" (Planquette). 8.0—*Songs from Opéra-Comique.* Selection from "The Bayadere" (Kálmán). Selection from "Carmen" (Bizet). Selection from "Rigoletto" (Verdi). 8.15—Military Music. 8.30—German Lesson. 8.35—Accordion Music. 8.45—Operetta Songs.

9.0—*Orchestral Music.* Selection from "La Princesse jaune" (Saint-Saëns). Pacific No. 231 (Honegger). 9.15—Selections by an Argentine Orchestra.

9.30—Concert by the Elsa Philips Cigány Orchestra, relayed from the Café Albrighi. In the interval, Light Music. 10.30—News Bulletin. 10.45—*Violin Solos.* Ronde des Lutins (Bazzini). Souvenir (Drdla). Gavotte (Grétry). Aubade d'amour (Monti). Arioso (Händel). 1.0—Popular Songs. 11.15—North African News.

11.30—*Orchestral Selections.* Concerto (Tchaikovsky). Hurrah! Die Musik kommt! (Zimmer). 12 *midnight*—Weather, Announcements and Close Down.

TRIESTE (Italy)

Ente Italiano Audizioni Radiofoniche. 1,211 kc/s (247.7 m.); 10 kW.

Transmits at intervals from 8.15 a.m.

7.5 *p.m.*—*Quintet Concert.* Selection (Plessow). Catari, Catari (Cardillo). Tango (Liett). Waltz, Aquarellen (Johann Strauss). Selection from "Die Faschingsfee" (Kálmán). Czardas (Driscuolo). A Chinese Masked Ball (Krome). In the interval at 7.25—*English Lesson* on Gramophone Records.

8.0 till Close Down—See *Turin.*

TURIN (Italy)

Ente Italiano Audizioni Radiofoniche. 1,096 kc/s (273.7 m.); 7 kW. Relayed by *Milan*, 905 kc/s (331.5 m.), and *Genoa*, 959 kc/s (312.8 m.).

Transmits at intervals from 8.15 a.m.

7.5 *p.m.*—Light Music. 7.30—Time, Signal and Programme Announcements. 7.31—Popular Music on Gramophone Records. 8.0—Giornale Radio and Weather Report.

8.15—*Programme of Light Music.* Il mio amore (Margutti). Selection from "Der lustige Krieg" (Johann Strauss).

8.30—Scientific Talk.

8.45—"Paganini"—Operetta (Lehár). In the intervals, Talk and Literary Notes. After the Operetta, Giornale Radio.

VIENNA (Austria)

Radio-Wien. 581 kc/s (517 m.); 15 kW. Relayed by *Graz*, 852 kc/s (352.1 m.); *Innsbruck*, 1,058 kc/s (283 m.); *Klagenfurt*, 662 kc/s (453.2 m.); *Linz*, 1,220 kc/s (246 m.); and *Salzburg*, 1,373 kc/s (218 m.).

Transmits at intervals from 9.20 a.m.

5.5 *p.m.*—*Concert of Operetta Music*, by the Josef Sommer Orchestra, March from "The Gondoliers" (Sullivan-Komzak). Waltz from "The Dollar Princess" (Fall). Overture, "Venus auf Erden" (Lincke). Intermezzo from "Si" (Mascagni). Selection from "La Princesse de Trébizonde" (Offenbach). Because you're you, from "Red Mill" (Herbert). Potpourri, Operetten revue (Robrecht). Selection from "Bank ban" (Erkel). Waltz, Roses from the South (Johann Strauss). Waltz from "The Queen's Kerchief" (Johann Strauss). Selection from "The Geisha" (Jones). March from "Der fliegende Rittmeister" (Dostal).

6.15—Agricultural Talk. 6.40—Talk by Engelbert Nitsche, with Introduction by Michael Hainisch: The Family as the Basis of Civilisation and Industry. 7.10—Physical Culture Course. 7.30—Time Signal, Weather Forecast and Programme Announcements.

7.40—Recital of Viennese Popular Songs, arranged by Fritz Lange. 8.40—Talk with Gramophone illustrations by Dominik Josef Wolfel: Feria Sevillana—an Andalusian, National Festival. 9.10—News, Weather Report and Announcements.

9.25—**Concert of Popular Music by Josef Hellmesberger,** on the Twenty-Fifth Anniversary of his Death. The Wilhelm Wacek Orchestra. March from "Fata Morgana." Overture, "The Pied Piper of Hamelin." Waltz, Rundgesange. Viennese Fantasia. Teufels Tanz. Gavotte. Entr'acte from "Harlekin als Elektriker." Selection from "Das Veilchenmädel." Polka. Leichtfussig.

10.30—See Berlin (Witzleben). 10.45—Dance Music on Gramophone Records.

WARSAW (Poland)

Polskie Radio, 212.5 kc/s (1,411 m.); 120 kW.

11.20 *a.m.*—Aviation Weather Report. 11.25—Interval. 11.45—Press Review. 11.58—Time Signal and Bugle Call from the Tower of St. Mary's Church, *Cracow.*

12.5 *p.m.*—Programme Announcements. 12.10—Light Music on Gramophone Records. 1.20—Weather Report. 1.25—Interval. 1.35—Popular Music on Gramophone Records. 1.55—2.45—Interval.

2.45—Light Music on Gramophone Records. 3.5—Economic Report and Exchange Quotations. 3.15—Aviation Notes. 3.20—Interval. 3.25—Talk on History. 3.45—Hydrographic Report. 3.50—Programme for Children. 4.15—Interval. 4.20—Talk on History. 4.35—Light Music on Gramophone Records. 4.40—Light Music on Gramophone Records. 4.55—Talk in Georgian. 5.10—Talk: The Economic Bases of the Chino-Japanese Conflict.

5.35—*Symphony Concert by the Warsaw Philharmonic Orchestra*, conducted by Emil Mlynarsky. Symphony No. 8, The Unfinished (Schubert). Carnival Overture (Dvorak). Introduction to "The Mastersingers" (Wagner). Intermezzo, Introduction and Fugue from the Suite Op. 43 (Tchaikovsky). Overture, "Die Gräfin" (Moniuszko).

6.50—Miscellaneous Items. 7.15—Agricultural Report. 7.25—Programme Announcements. 7.30—Sports Notes. 7.35—Light Music on Gramophone Records. 7.45—Radio Journal. 8.0—Reading.

8.15—"The Swallows"—Operetta (Herblay), arranged for Radio by M. Makovieckа. 10.15—Answers to Correspondence. 10.30—Radio Journal. 10.35—Weather Report and Police Notes. 10.40—Dance Music, relayed from the Café Gastronomia. 12 *midnight* (approx.)—Close Down.

WEDNESDAY (April 27)

PRINCIPAL EVENTS

SYMPHONY CONCERTS

8.0 p.m. Stockholm: Hugo Alfven programme.
8.15 ,, Daventry: B.B.C. Orchestra, conductor Adrian Boult. Suggia ('cello).
9.0 ,, Budapest: Classics.

CONCERTS (Vocal and Instrumental)

7.30 p.m. Leipzig: Opera choruses.
8.0 ,, Oslo: from operetta, old and new.
8.15 ,, Schweizerischer Landessender: Chamber orchestra and choir.
8.55 ,, Huizen: Choir and orchestra.
9.0 ,, Frankfurt, Stuttgart: Contemporary Music.
9.10 ,, Hamburg: Oratorio.
10.10 ,, Copenhagen: Theatrical Gala.

OPERAS AND OPERETTAS

8.0 p.m. Radio-Paris: "Manon" (Massenet).
8.5 ,, Heilsberg: "La finta giardiniera" (Mozart).
8.40 ,, Langenberg: "Siegfried" (Wagner), Act II.
8.45 ,, Rome: Opera relay.

CHAMBER MUSIC

5.0 p.m. Oslo: Quintet, Op. 163 (Schubert).
8.0 ,, Brussels No. 1: Quintet, Op. 34 (Brahms).

RECITAL

9.45 p.m. Warsaw: Marteau (Violin).

PLAYS AND TALKS

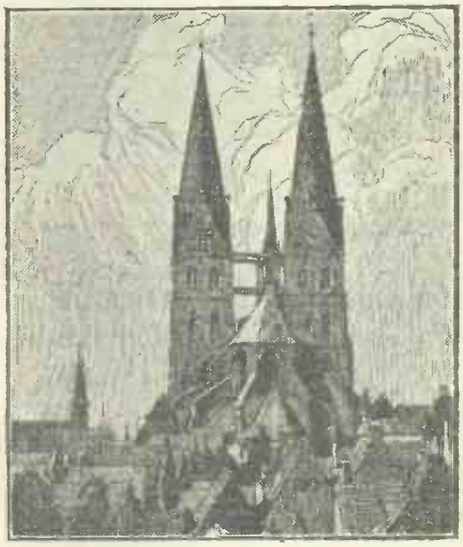
7.30 p.m. Stuttgart, Frankfurt: Two sketches
9.0 ,, Brussels No. 1: Molière's Soubrettes.

DANCE MUSIC

7.10 p.m. Berlin (Witzleben): Breslau, Königs Wusterhausen: (from 7.30).
10.30 ,, Strasbourg: (till 12).

A Dance of Death

In the old Church of St. Katharine, at Lübeck, of which a drawing is reproduced here, there is a famous painting known as the "Lübecker Totentanz." It commemorates the mediæval mystery plays in which mendicant friars used to find a ready way to the sympathies of their hearers. Death was presented in them in a lighthearted guise as the leveller, in whose hands rich and poor were treated alike without fear or favour, and in the Lübeck picture all ranks, from the Pope to the humblest citizen, are shown as equals. Dating from 1643, the painting was originally on wood: it was restored and transferred to canvas in 1701. The symbolism of the picture has inspired the modern composer, Hans Henry Jahnn, to write an oratorio which he has called a "Sprech-oratorium," with the title of *New Lübeck Dance of Death*, in which the text is spoken. It is to be broadcast by HAMBURG this evening, beginning at 9.10, under the direction of Gerhard Maasz. It should offer an interesting comparison with another new oratorio, with spoken text, which was broadcast on Sunday.



St. Katharine's Church, Lübeck

The Heroine of Several Operas

The Abbé Prévost's story of the ill-fated Manon Lescaut has furnished several composers with opera plots: Massenet's, one of the most popular operatic versions, is to be broadcast by RADIO-PARIS this evening. His place in the temple of fame is usually assigned to him on the ground that he knew very well how to give the public of his day exactly such musical fare as its taste demanded. And, on the assumption that its taste was no very critical one, the saying is made to sound like a reproach. But it is only half a truth, and, like every half-truth, wholly unfair. Even if it be true that he catered chiefly for the well-fed, to whom opera is merely a comfortable way of spending an evening, offering them year after year a whole series of banquets of melodious sweetness, he did something more than that. In his hands the old Gounod recipes, enriched by something of Wagner's lavish bigness of conception, helped to mould, as well as to gratify, popular taste, pleasing his conservative adherents without disappointing those who demanded more solid fare than merely luscious melody. He had a real sense of drama, and a very happy knack of effective characterisation in his music; these, allied to his apparentld inexhaustible fund of fresh, natural melody, any used with a thorough mastery of the orchestra and a sympathetic knowledge of the human voice, are the secrets of his success. In an age which holds refinement and good manners in contempt, which classes courtesy as weakness, there is inevitably some reaction against music of that suave and gracious charm: but only foolish people can deny to Massenet a place of honour as a real master of his craft, and one whose success was worthily earned.

NATIONAL

	kc/s.	m.	kW.
London:	1,148	261.3	50
Daventry:	193	1,554.4	30
Northern:	995	301.5	50

10.15 *a.m.*—The Daily Service.
10.30—Time Signal (Greenwich), Shipping Forecast.
10.45—11.0—"Through Foreign Eyes"—XIII. Professor Arnold Toynbee.
12 *noon*—Quentin Maclean at the Organ.
12.45 *p.m.*—Gramophone Records.
1.0—Time Signal (Greenwich).
1.30—Jack Martin and his Hotel Majestic Orchestra.
2.25—For the Schools. Reception Test.
2.30—Biology and Hygiene. Professor Winifred Cullis, C.B.E.
3.0—English Literature. Miss N. Niemeyer: "Delight in Poetry"—II.
3.25—Interval.
3.30—The Bournemouth Municipal Orchestra. Conductor, Sir Dan Godfrey. Zacharewitsch (*Violin*).
4.45—Time Signal (Greenwich).
4.45—Reginald New at the Organ.
5.15 (Daventry)—The Children's Hour.
5.15 (London and Northern)—The B.B.C. Dance Orchestra.
6.0—"The First News."
6.30—Time Signal (Greenwich).
6.30—The Foundations of Music. Händel's Pianoforte Music.
6.50—7.0—"Plays and the Theatre." Mr. James Agate.
7.30—"Must Britain Starve?"—III. "Would a Tariff help the Farmer?" A Discussion between Mr. C. S. Orwin and Mr. A. P. McDougall, with Sir John Russell, F.R.S., in the Chair.
8.0—Interval.
8.15—B.B.C. Symphony Concert—XXII. Suggia (Violoncello). The B.B.C. Symphony Orchestra (Leader, Arthur Catterall). Conductor, Adrian Boult. Orchestra: Overture, In the South (Elgar); A Colour Symphony (Bliss).
9.0—Time Signal (Greenwich).
9.15—"The Second News."
9.30—Symphony Concert—Part II. Suggia and Orchestra: Concerto in D (Haydn). Orchestra: Variations on a Theme of Haydn (Brahms).
10.25—Shipping Forecast; New York Stock Market Report.

REGIONAL

	kc/s	m.	kW.
London:	842	356.3	50
Midland:	752	398.9	25
Northern:	626	479.2	50

10.15 *a.m.* (London and Northern)—The Daily Service.
10.30—11.0 (London and Northern)—Daventry National Programme.
11.30—12 *noon* (London)—Experimental Television Transmission (Baird Process).
12—The Midland Studio Orchestra. Joan Bromwich (Pianoforte).
1.15 *p.m.*—Organ Recital by Dr Harold Rhodes.
2.0—3.0—The Northern Studio Orchestra. H. Mostyn Pugh (Tenor).
3.30 (London and Northern)—Daventry National Programme.
5.15—The Children's Hour.
6.0—"The First News."
6.30 (London)—The B.B.C. Theatre Orchestra. Conductor, Leslie Woodgate. Gaby Valley (Soprano).
6.30 (Midland)—The Leicester Imperial Band, conducted by S. S. Iliffe. Wortley Allen in Scenes from Shakespeare. Alice Vaughan (Contralto).
6.30 (Northern)—An Instrumental and Choral Concert.
8.0—Vaudeville. Geraldo and his Piano Accordions. Julian Rose (Our Hebrew Friend). Sandy Rowan, the Scots Comedian. Molly Stoll and Douglas Steward (Cross Talk). Nancie Lovat (Soprano). Bob and Alf Pearson (Harmony at the Piano). Ann Penn (Impersonations). The B.B.C. Dance Orchestra.
9.0 (London)—Sydney Baynes and his Orchestra. Nelson Jackson (Entertainer).
9.0 (Midland)—"Landscape." The Midland Studio Orchestra. Mark Mellus (Baritone). 9.0 (Northern)—The Studio Orchestra. Elsie Boardman (Contralto).
10.15—"The Second News."
10.35 (Midland) — Experimental Transmission by the Fultograph Process.
10.35—12 *midnight* (London and Northern)—Dance Music.

10.30—Talk.
10.45—12 *midnight*—Dance Music.
11.30—Time Signal (Greenwich).

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)

825.3 kc/s (363.3 m.); 13 kW.
Transmits at intervals from 12.30 p.m.
7.0 *p.m.*—*Songs from Operettas.* Romance and Duet from "Le Jour et la Nuit" (Lecocq). Selection from "Orpheus in the Underworld" (Offenbach).
7.15—Financial Notes and Exchange Quotations. 7.25—Shipping Report and Weather Forecast. 7.30—Instrumental Solos. 7.40—Programme for Women. 7.55—News and Time Signal. 8.0—Viennese Music. 8.20—Book Review.
8.45—*Symphony Concert by the Station Orchestra*, conducted by Hubert Guillet. Overture, "Il Seraglio" (Mozart). Selection from the "Pathetic" Symphony (Tchaikovsky). Two Nocturnes for 'Cello and Piano (Martina). The Cricket and The Kingfisher (Ravel). Basque Rhapsody (Pierné). Popular Russian Song (Liadov).
10.0 (approx.)—Close Down.

BARCELONA (Spain)

Radio-Barcelona (EAJ1). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 8.30 a.m.
8.0 *p.m.*—*Concert by the Station Trio.* Canzone d'amore (E. Toselli). Selection from "Lakmé" (Delibes). Nocturne in D Flat (Slavat). Reverie, Extase (Ganne).
8.30—Exchange Quotations and Catalan Grammar Lesson. 9.0—Request Concert on Gramophone Records and News. 10.0—Chimes, Weather Forecast and Market Prices.
10.5—*Concert by the Station Orchestra.* March (Smetana). Selection from "The Czardas Princess" (Kálmán). Berceuse (Schmitt). Oriental Dance (Pacheco).
10.30—Concert by a Military Band. 11.30—Concert by the Toldra Sextet, relayed from the Granja Royal.
1.0 *a.m.* (Thursday)—Close Down.

BELGRADE (Yugoslavia)

697 kc/s (430.4 m.); 2.5 kW.
Transmits at intervals from 9.55 a.m.
4.0 *p.m.*—Light Music on Gramophone Records. 5.0—Recital of National Songs by Herr Mihajlovic. 5.30—Popular Music on Gramophone Records. 6.25—Programme Announcements. 6.30—Gymnastics Course. 7.0—German Lesson. 7.30—Talk for Sokols. 8.0—Song Recital by Frau Eugenie Valjani.
8.30—*Violin and 'Cello Recital* by Prof. Petar Stojanovic (Violin) and Nikola Mandrino ('Cello). Concerto for Violin in A Minor (Bach). Concerto in C Major for 'Cello (Haydn). Violin Solos: (*a*) Arioso (Händel), (*b*) Minuet (Haydn), (*c*) Canto amoroso (Sammartini), (*d*) Minuet (Mozart). 'Cello Solo: Chant du Ménestrel (Glazounov). Violin Solo: Yugoslavian Fantasia (Stojanovic). 'Cello Solo: Am Springbrunnen (Davidov).
10.0—News and Sports Notes. 10.20—Light Music on Gramophone Records.

BERLIN (Germany)

Königs Wusterhausen. 183.5 kc/s (1,635 m.); 60 kW.
Transmits at intervals from 5.45 a.m.
12 *noon*—Weather for Farmers, followed by Gramophone Concert of Popular Music, and Second Weather for Farmers. 12.55 *p.m.*—Nauen Time Signal. 1.30—News Bulletin.
2.0—Gramophone Records of the Philadelphia Symphony Orchestra, relayed from *Berlin* (*Witzleben*). 3.0—Stories for Young People. 3.30—Weather Forecast and Exchange Quotations. 3.45—Talk for Women.
4.0—Educational Talk. 4.30—See *Hamburg*. 5.30—Talk: The Economic Importance of the Settlement to the German East. 6.0—Illustrated Talk: Music and Nationality.
6.30—Talk: German Botanical Societies. 6.55—Weather for Farmers.
7.0—Talk for Civil Servants. 7.30—Dance Music from *Berlin* (*Witzleben*).
9.0—News Bulletin.
9.10—See Breslau. 10.10—Second News. 10.30—Concert from *Hamburg*. 12.30 *a.m.* (*Thursday*)—Close Down.

BERLIN (Germany)

Witzleben. 715 kc/s (419.5 m.); 1.5 kW.
Transmits at intervals from 6.30 a.m.
(Gymnastics and Gramophone Concert).
6.0 *p.m.*—*Cembalo Recital* by Anna Linde. Jacob's Marriage from the "Biblical Stories" (Johann Kuhnau). Les fastes de la grande et ancienne Ménestrandise (Couperin).
6.30—Talk: Legal Questions in Commerce. 6.55—"The Witzleben Station informs its Listeners. . . ."
7.0—Topical Talk. 7.10—Dance Music by the Oscar Joost Band, with Tenor Solos by Eric Helgar.
9.0—News Bulletin.
9.10—*Operatic Concert by the Berlin Wireless Orchestra*, conducted by Selmar Meyrowitz, and the Maximilian Albrecht Choir. Introductory Talk by Dr. Oscar Bie. Soloists: Pearl Joder (Soprano) and Fritz Wolff (Tenor). Overture, "Léhéman" (Dalayrac). Choral Selection from "Léhéman" (Dalayrac). Soprano Solo from "Faniska" (Cherubini). Tenor Solo from "Lodoiska" (Cherubini). Choral Selection from "Elisa" (Cherubini). Soprano Solo from "Eleonora" (Paër). Florestan's Aria from "Fidelio" (Beethoven). Duet from "Fidelio" (Beethoven).
10.20—Topical Report: Ireland.
10.40 (approx.)—*Concert*, conducted by Hermann Pape. Overture, "Rosamunde" (Schubert). Selection from "The Prophet" (Meyerbeer). Paraphrase on "The Loreley" (Nesvadba). March, Aus Stahl und Eisen (Rathke). Overture, "Liebe schafft Rat" (Fetras). Waltz Intermezzo, Rumänische Liebesnacht (Köpping). The Maharajah's Wedding Procession (Stork). March, Ein Manneswort (Pollack). Alt-Bayrischer Avanciermarsch (Scherzer). 11.0 (in an interval) News. 12 *midnight* (approx.)—Close Down.

BORDEAUX-LAFAYETTE (France)

(PTT). 986 kc/s (304 m.); 13 kW.
Transmits at intervals from 12.45 p.m.
7.30 *p.m.*—News and Market Prices.
7.40—Dramatic Criticism. 7.55—Lottery Results. 8.0—Agricultural Talk. 8.15—News Bulletin and Weather Report.
8.30—Haydn Concert by the Arca Symphony Orchestra, conducted by A. Guitraud, and Soloists. After the Programme, Bordeaux Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)

1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 11.0 a.m.
6.0 *p.m.*—Hungarian Programme

WEDNESDAY continued

7.0—See *Prague*. 10.50—Programme Announcements.

BRESLAU (Germany)

923 kc/s (325 m.); 1.5 kW. Relayed by *Gleiwitz*, 1,184 kc/s (253 m.).

Transmits at intervals from 6.30 a.m. 4.30 *p.m.*—Concert of Light Music from the Theatre Café, *Gleiwitz*. 5.0—Book Review. 5.15—Agricultural Report, followed by Recital of Songs by Paul Graener. Soloists: Albert Gaertner (Tenor), and Franz Kauf (Pianoforte). 5.45—Talk: The Youth Hostels in Upper Silesia. 6.0—Talk: Form and Material in Sculpture. 6.30—Talk: Piece Work in Industry. 6.55—Weather Forecast, followed by Topical Talk. 7.10—See *Berlin* (*Witzleben*). 9.0—News Bulletin. 9.10—Silesian Calendar — Radio Sequence (Schenke), music by Karl Szcuka. 10.10—Time Signal, Weather, Press Review, Sports Notes and Programme Announcements. 10.40—Dance Music and Light Music by the Station Orchestra, conducted by Franz Marszalek. 12 *midnight* (approx.)—Close Down.

BRNO (Czechoslovakia)

878 kc/s (342 m.); 35 kW.

Transmits at intervals from 11.0 a.m. 6.0 p.m.—Topical Talk. 6.10 (approx.)—See *Prague*. 6.25—News and Talks in German. 7.0—See *Prague*. 10.50—Announcements.

BRUSSELS (Belgium) (No. 1)

I.N.R. 590 kc/s (509 m.); 15 kW.

12.15—1.45 *p.m.*—Weather and Concert by the Max Alexys Orchestra. 5.0—Concert from the Hotel Albert Premier. 6.15—Talk: The Worker and Methods of Production.

6.30—*Gramophone Concert*. Aloma (Bowera). Waltz, Hawaiian Nights (Roberts). Cryin' for the Carolines (Lewis). I'll close my eyes to the rest of the World (Friend). I'm yours (Harburg). You're driving me Crazy (Donaldson). Love Dream of Lula Lu (White). Pearl of Hawaii (Herbert). Parade of the Minutes (Rees). Blue again (McHugh). Sing, you sinners (Coslow). The Woman in the Shoe (Freed). Potpourri of Old Melodies.

7.15—Microphone Report: The Belgian Railway System. 7.30—Medical Talk. 8.0. — Concert by the Brussels Quartet. Soloists: MM. Desclin, Delvenne, Van Schepdael and Roi. Mlle. Tambuyser at the Pianoforte. Quintet (Brahms).

8.40 — *Gramophone Concert*. Divertissement in F (Mozart). Overture, "Le Bourgeois Gentilhomme" (Richard Strauss).

9.0—The Soubrette in the Works of Molière—Dramatic Programme with Commentary by Théo Fleischmann.

9.40—*Gramophone Dance Music*. Foxtrots: (*a*) Hurt, (*b*) Wedding of the Garden Insects. What good am I without you? Waltz, Marilyn. Saxema. Waltz, Reaching for the Moon. She's a very good friend of a friend of mine. 10.0—Le Journal Parlé.

BRUSSELS (Belgium) (No. 2)

N.I.R. 887 kc/s (338.2 m.); 15 kW. Programme in Flemish.

12.15—1.45 *p.m.*—Weather and Concert by the Max Alexys Orchestra.

5.0—*Belgian Sonatas*. Sonata for Violin and Pianoforte, Op. 34 (Delcroix). Soloists: Henry Wagemans (Violin) and Charles Scharrés (Pianoforte).

5.30—Variety Music on Gramophone Records. 6.15—Economic Report.

6.30—*Gramophone Concert*. Overture, "Maritana" (Wallace). Estrellita (Ponce-Davis). Pas des Echarpes (Chaminade). Arabesques Nos. 1 and 2 (Debussy). Narcissus (Nevin). Serenade (Moszkovsky). Lohengrin's Farewell from "Lohengrin" (Wagner). Liebesbotschaft (Schubert). Ronde des Gnomes (Liszt). Overture, "Alessandro Stradella" (Flotow).

7.15—Variety Programme. 7.30—Le Journal Parlé.

8.0—*Accordion Recital by the Royal Society for Popular Music*. Selection from "Congress Dances." Selection from "Her Highness commands." Chevalier Memories. Le Roi de Cirage.

8.15—Items by M. Lamoen. 8.30—Extracts from "De Hoogste Wet"—Play (Dr. Walch). 9.0—Concert relayed from the Salle Memlinc, *Antwerp*. 10.0—Le Journal Parlé.

BUCHAREST (Romania)

Radio-Bucarest. 761 kc/s (394 m.); 12 kW.

Transmits at intervals from 12 noon. 5.0 *p.m.*—Variety Music and Romanian Music by the Station Orchestra. 6.0—News Bulletin. 6.10—Talks on Social Problems and Foreign Politics. 7.40—Light Music on Gramophone Records. 8.0—Suite for 'Cello (Tchaikovsky). 8.30—Talk (to be announced). 8.45—Song Recital by Mlle. Gutiano. 9.15—*Violin Recital* by M. Theodoresco. Concerto in G Major (Tartini-Pente). Chanson (Ivan Marilu). Ariette espagnole (Ivan Marilu). 9.45—News and Close Down.

BUDAPEST (Hungary)

545 kc/s (550 m.); 18.5 kW.

Transmits at intervals from 9.15 a.m. Also relayed on 210 m. from 7.30 p.m. —12 midnight.

6.0 *p.m.*—*Concert from the Café Ostende*. Selection from "Orpheus in the Underworld" (Offenbach). Song from an Operetta (Fenyes). Tango Song (Markus-Marai). Cuban Holiday (Warschauer). Song (Sandor). Operetta Potpourri (Huszka-Martos). You are my Heart's Delight, from "The Land of Smiles" (Lehár). Selection from "The Pearl Fishers" (Bizet). Sound Film and Operetta Melodies.

7.0—Talk: The Old Budapest Markets. 7.30—Chopin Concert.

9.0—Concert of Classical Music by The Royal Hungarian Opera House Orchestra, conducted by Ernst Dohnanyi. Symphony in B Flat Major (Bach). Divertissement in D Major (Mozart). Pianoforte Concerto in B Flat Major (Brahms).

10.30—Weather, followed by Cigány Concert from the Café Emke.

COPENHAGEN (Denmark)

1,067 kc/s (281 m.); 0.75 kW. Relayed by *Kalundborg*, 260 kc/s (1,153 m.).

Transmits at intervals from 7.30 a.m. (Gymnastics).

11.0 *a.m.*—Weather Forecast. 11.10—Fishing Notes. 11.15—Educational Talk. 12 *noon*—Time and Chimes from the Town Hall.

12.2 *p.m.*—String Ensemble Concert, conducted by A. Bendix, relayed from the Wivex Restaurant. 2.0—3.0—No Transmission.

3.0—*Concert by Carl Rydahl's Instrumental Ensemble*. Overture, "The Bohemian Girl" (Balfe). Waltz, Roses from the South (Joh. Strauss). Selection from "The Magic Flute" (Mozart). Minuet from the Oratorio "Samson" (Händel). Song (Henriques). The Mill in the Black Forest (Eilenberg). Waltz Intermezzo, Lykkeposen (Ryming). Talk for Women. Waltz from "Eugen Onegin" (Tchaikovsky). Selection from "The Little Princess" (Rygaard). Bib and Bob (Demaret). Gavotte (Michailov). Waltz, Toujours ou jamais (Waldteufel). Selections (Lincke): (*a*). Amina, (*b*) March, Berliner Luft.

5.0—Gramophone Records of Variety Music. 5.40—Exchange and Fish Market Prices. 5.50—Talk and Reading in German: The Austrian Author, Ludwig Anzengruber. 6.20—French Lesson. 6.50—Weather Forecast. 7.0—News and Announcements. 7.15—Time Signal. 7.30—Agricultural Talk (from the *Esbjerg* Studio). 8.0—Chimes from the Town Hall.

8.2—*Orchestral Concert of Operetta Music*, conducted by Emil Reesen. Overture, "Cagliostro in Wien" (Joh. Strauss). Selection from "Die schöne Gatathee" (Suppé). Waltz from "Riquette" (O. Straus). Selection from "Roses from Florida" (Fall). Selections (Lehár): (*a*) Foxtrot from "Clo-Clo," (*b*) Chinese Onestep from "The Land of Smiles," (*c*) March from "Der Mann mit den drei Frauen."

8.50—Talk: The Struggle against Crime. 9.20—Sonata for Clarinet and Pianoforte (Weis). 9.30—Reading. 9.55—News Bulletin.

10.10—Gala Concert by the Scala Band, conducted by Scandio Tognarelli and Soloists, relayed from the National Scala. 1.0 *a.m.* (*Thursday*)—Close Down.

CRACOW (Poland)

959 kc/s (312.8 m.); 1.5 kW.

Transmits at intervals from 11.45 a.m. 6.50 *p.m.*—Miscellaneous Items and Announcements. 7.15—Light Music on Gramophone Records. 7.25—Programme Announcements. 7.30—Answers to Correspondents. 7.45—10.40 — See *Warsaw*. 10.45 — Popular Music on Gramophone Records. 11.0—Dance Music. 12 *midnight* (approx.)—Close Down.

DUBLIN (Ireland)

(2RN). 725 kc/s (413 m.); 1.2 kW. Relayed by *Cork*, 1,337 kc/s (224.4 m.).

1.30 *p.m.*—2.0—Time Signal, Weather Forecast, Stock Report and Light Music on Gramophone Records. 6.0—Popular Music on Gramophone Records. 6.15—Programme for Children. 7.0—Light Music on Gramophone Records. 7.20—News Bulletin. 7.30—Time Signal. 7.31—Gaedhilg. 7.45—German Lesson.

8.0—Concert by No. 1 Army Band, conducted by Colonel Fritz Brase.

9.0—Soprano Solos by Mme. K. McCaffery. 9.15—Tenor Solos, by Joseph O'Neill. 9.30—Sponsored Programme. 10.30—Time Signal, News, Weather Report and Close Down.

FÉCAMP (France)

Radio Normandie. 1,364 kc/s (219.9 m.); 10 kW.

Transmits at intervals from 12 noon. 7.30 *p.m.*—Variety Music on Gramophone Records. 7.45—Announcements. 8.0—News Bulletin.

8.30—Concert. Soloists: Mme. Laporte ('Cello), Mme. Julia (Pianoforte and M. Lahaye (Violin). 10.45—Picture Transmission. 11.0 *p.m.*—1.0 *a.m.* (*Thursday*)—Variety Concert. 1.0 *a.m.* (approx.)—Close Down.

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.5 kW. Relayed by Cassel, 1,220 kc/s (246 m.).

Transmits at intervals from 6.0 a.m.

12 *noon*—*Gramophone Concert of Chamber Music*. Sonata in B Flat Major (Mozart). Trio No. 5 in D Major, Op. 7, No. 1 (Beethoven).

12.50 p.m.—News Bulletin. 12.55—NauenTime Signal. 1.0—Concert from *Munich*. 2.0—News Bulletin. 2.25—Sponsored Programme. 2.40—Sponsored Gramophone Records. 3.0—Weather Report. 3.5—Time and Economic Notes. 3.15—Programme for Young People: Readings. 4.55—Economic Notes.

5.0—See *Stuttgart*. 6.15—Economic Notes. 6.25—Talk for Workers: The Experiences of a Welfare Worker. 6.50—Talk: May Day Festivities and the Workers' Movement. 7.15—Time, Programme Announcements, Weather and Economic Notes. 7.30—9.0—See *Stuttgart*.

9.0—Concert by Members of the Station Orchestra. Soloists: Hans Fleischer (Pianoforte), Else Matthieu (Soprano), Ernst Groell (Violin and Viola), and Herbert Haag (Organ). Concerto for Organ and String Orchestra (Wolfgang Fortner). Selections (Hans Fleischer): (*a*) Mondlied, for Violin and Pianoforte, Op. 6, No. 3, (*b*) Five Dance Forms for Pianoforte, Op. 10, (*c*) Six Huch Songs, Op. 63, (*d*) Sonata for Viola, Op. 11. Kleine Kammermusik für den Rundfunk (Ernst Hermann Meyer).

10.20—Time, Weather, News and Sports Notes. 10.40—See *Berlin* (*Witzleben*).

HAMBURG (Germany)

Norag (ha, in Morse). 806 kc/s (372 m.); 1.5 kW. Relayed by *Bremen*, 1,112 kc/s (270 m.); *Flensburg*, 1,373 kc/s (218 m.); *Hanover*, 530 kc/s (566 m.) and *Kiel*, 1,292 kc/s (232.2 m.).

Transmits at intervals from 5.45 a.m.

4.30 p.m. (from Bremen)—Concert relayed from the Liner "Europa." Festival Polonaise in E Major (Svendsen). Concert Waltz, Erinnerung an Wien (Baussnern). Selection from "Elektra" (R. Strauss). Selections (Koennecke): (*a*) Poem, (*b*) Serenade. Second Suite (Micheli).

5.30—Talk: North German Dialect in the Towns. 5.55—Variety Programme. 6.30—Dialogue: Welfare Work. 6.55—Frankfurt Exchange and Hamburg Market Prices. 7.0—Topical Talk. 7.15—Weather Report.

7.20—*Concert by the Little Norag Orchestra*, conducted by Adolf Secker. Overture, "Poet and Peasant" (Suppé). Babillage (Gillet). Overture, Alsterregatta (Fetras). Waltz, Golden Rain (Waldteufel). Teddy Bear (Gomberto). March, Per aspera ad astra (Blankenburg).

8.15 p.m. (from Hanover)—Concert by the Typographia Glee Society, conducted by Heinrich Imelmann. Zieh mit! (Angerer). Minnelied (Bünte). Einkehr (Zöllner). Das deutsche Volkslied (Meyer-Stolzenau). Wanderlied (Volbach). Vagantenlied (Schrader). Vagantenlied (Krannig). Der Soldat (Silcher). Lied der Landsknechte auf dem Zug (Stunz). Die Landsknechtsweise (Brune). Der Krähwinkler Landsturm (arr. Hans Gal).

9.10—"Neuer Lübecker Totentanz"—An Oratorio for Speakers (Hans Jahnn) by Soloists, the Little Norag Orchestra, conducted by Gerhard Maasz, the Norag Choir and Gerhard Gregor (Organ). 10.0—Time and News. 10.20—Concert of Light Music.

HEILSBERG (Germany)

1,085 kc/s (276.5 m.); 60 kW Relayed by *Danzig*, 662 kc/s (453.2 m.).

Transmits at intervals from 6.30 a.m. 11.40 *a.m.*—Concert from *Leipzig*.

1.5—2.30 *p.m.*—*Concert by the Little Orag Orchestra*, conducted by Florenz Werner. March, In Treue fest (Teike). Overture, "Zampa" (Hérold). Suite from Bal costumé (Rubinstein). Waltz, Wiener Bonbons (Strauss). Selection from "A Day in Paradise" (Eysler). Comme va le Ruisseau (Ackermans). Légende d'amour (Becce). Fantasia on the Works of Auber (Rhode).

3.25—Talk for Housewives. 3.35—Programme for Children. 4.5—Talk for Parents: Teaching Children to read without Tears. 4.30—See *Hamburg*. 5.30—Review of Books 6.0—Humorous Gramophone Records. 6.15—Market Prices. 6.30—Talk: Reminiscences of the Ermland.

7.0—*Mandoline and Guitar Recital*. Festmarsch (Mickenschreiber). Waltz, Maienzeit (Kollmanek). Ein Partie aufs Land —Characteristic Folk Song Potpourri (Köhler). Spanish Dance (Ritter). Coburg Mandoline March (Schuppe).

7.30 (from *Danzig*)—*Werner Goebel Songs* by Max Begemann (Baritone). In der Fremde und Heimkehr (Baron von Eichendorff). Geweihter Platz (Goethe). Der Friedensbote, and In Danzig (Eichendorff). Tauben in einer Grossstadtstrasse, and Sonett vom Schneemann (Seitz)

8.0—Weather Forecast. 8.5—La finta Giardiniera—Comic Opera in Three Acts (Mozart). 10.0—News, followed by Concert of Light Music and Dance Music. 12 *midnight*—Close Down.

HILVERSUM (Holland)

1,004 kc/s (298.8 m.); 8.5 kW.

7.25—10.40 *a.m.*—Programme of the Workers' Radio Society (V.A.R.A.).

7.25—7.40 and 8.10—8.25—Physical Culture. 8.40—Gramophone Records of Variety Music. 9.40—Quintet Concert and Gramophone Records of Variety Music.

10.40—Religious Programme, arranged by the Liberal Protestant Radio Society (V.P.R.O.).

10.55 till Close Down. V.A.R.A. Programme. 10.55—Quintet Concert with Songs and Recitations.

12.40 *p.m.*—*Septet Concert*. March, Leuchtkugeln (Finkler). Waltz, A Day in Seville (Waldteufel). Intermezzo, Cairo (Powell). Gramophone Records of Light Music. Dance Potpourri, On with the Show, 1930 (Nicholls). Waltz, Walzer im Traum (Meyer-Helmund). Gramophone Records of Light Music. Potpourri, From the Rhine to the Danube (Rhode). Gramophone Records of Popular Music. Tango, Eine wie Du (Mann). Waltz, Das muss ein Stück vom Himmel sein (Heymann). Ballet Music from "Czar and Carpenter" (Lortzing). Dir sing ich mein Lied (Lehar). Gramophone Records of Variety Music. Selection from "Les Dragons de Villars" (Maillart). Pasodoble, Rosa, reizende Rosa (Salten).

2.25—Interval. 2.55—Culinary Talk. 3.40—Pianoforte Recital. 3.55—Address. 4.10—Pianoforte Recital (contd.) 4.20—Programme for Children. 5.10—The Children's Letter-Box. 6.10—Gramophone Records of Light Music. 6.40—Programme arranged by the V.R.O. 7.10—Chess Lesson. 7.40—Talk: The Principles of the Workers' Socialist Party.

8.10—*Orchestral Concert of Eastern Music*. Overture, "Abu Hassan" (Weber). Turkish March (Mozart). Arab Dance (Tchaikovsky). Orientale (Cui). Ballet égyptien (Luigini). "A Day in the Sahara" by A. de Jong. Gramophone Records of Light Music. A Sketch. Overture, "Il Seraglio" (Mozart). Turkish March from "The Ruins of Athens" (Beethoven). Selection from "Scheherazade" (Rimsky-Korsakov). Indian Ballet from "Lakmé" (Delibes).

10.10—"The Adventures of Messrs. Wakker and Tropenduit."

10.25—*Orchestral Concert*, conducted by Hugo de Groot. Selection from "Morning, Noon and Night" (Suppé). Waltz, Der Himmel voller Geigen (Ziehrer). Un peu d'amour (Silesu). Selections (Joh. Strauss): (*a*) Gallop, Banditen, (*b*) Im Galop. Slow Waltz, Idylle passionnelle (Razigade). Xantippchen (Königsberger). Polka Potpourri (Lindemann). 10.55—News Bulletin.

11.10—*Quintet Concert*. March, Wien bleibt Wien (Schrammel). Waltz, Freut euch des Lebens (Joh. Strauss). Gavotte, Stéphanie (Czibulka). Gramophone Records of Light Music. Ein bisschen Liebe für mich (Abraham). Argentine Tango, Plegaria de mi Corazon (Freiberg). Waltz, Ja, so ein Liebespaar (Gilbert). March, Sei mein Kamerad (Gilbert). Tango, Ist dein Herz noch ledig (Granichstaedten). Paso-doble, Rosa, reizende Rosa (Salter). Gramophone Records of Variety Music. Der Rosenhochzeitszug (Jessel). Waltz, Morgenblätter (Joh. Strauss). Was Blumen träumen (Translateur). Serenade (Heykens). Gramophone Records of Light Music. March, Perusa (Kálmán). Tango, Die alte Spieluhr (Reisfeld). Ich habe ein Herz, das nach Liebe sich sehnt (May). Sarbogárd! Dombovár (Stolz). Ich weiss nicht zu wem ich gehöre. Tango, Lola (Collaza). How do you do Mr. Brown? (Abraham). 12.40 *a.m.* (*Thursday*) Time and Close Down.

HUIZEN (Holland)

160 kc/s (1,875 m.); 8.5 kW.

Programme of the Christian Radio Society (N.C.R.V.).

8.40 *a.m.*—Bible Reading. 8.55—10.10—Variety Music on Gramophone Records. 10.40—Concert by the N.C.R.V. Women's Choir. 11.10—Programme for Invalids. 11.40—Harmonium and Soprano Recital by F. Jurjaanz and Mlle. A. Geest. 12.40 *p.m.*—Police Notes.

12.55—*Vocal and Instrumental Concert*. Soloists: Greta v. Wigcheren-Kieft (Songs), F. Hermann ('Cello), K. Borgers ('Cello), and L. Lauenroth (Pianoforte and Harmonium). Notturnino. . . . Andante for two 'Cellos and Pianoforte (Laboccetta). Five Sacred Songs with Harmonium accompaniment. Petit Père (George). Pie Jesu (Fauré). Jerusalem! Jerusalem! from "St. Paul" (Mendelssohn). Im Abendroth (Schubert). Two Divertissements (Haydn). Serenata (Piatti). Five Dutch Songs. Adagio in G Major (Grimm).

2.40—3.10—Interval. 3.10—Religious Reading. 3.40—Concert by the Delft Trio. 5.10—Variety Music on Gramophone Records. 5.40—Programme for Children. 6.40—Talk for Peasants. 7.40—8.10—Interval.

8.10—Police Notes. 8.25—Religious News. 8.40—Popular Music on Gramophone Records.

8.55—Concert by the NCRV Choir and a Small Orchestra, conducted by G. v. d. Burg. Soloists: Di Moorlag (Soprano), Augusta Reclaire (Contralto), Evert Miedema (Tenor), J. Ph. Caro (Bass), J. v. d. Burg (Cembalo) and Henk Ramselaar (Organ). Symphony No. 3 in C Major (C. Ph. Em. Bach). Der zwölfjährige Jesus im Tempel (Schütz) for Soloists, Choir, Orchestra and Organ. Paster Dialogue (Schütz) for Four Solo Voices and Organ. Suite for String Orchestra in A Minor (Telemann). 9.40—Talk: The Zuiderzee. 10.10—*Concert* (*contd.*). Cantata, "Am Abend aber desselbigen Sabbats" (Bach). Cantata, "Mein Freund ist mein" (Böhm). Concerto grosso for String Orchestra, Two Oboes, Bassoon and Cembalo (Händel).

11.20—News Bulletin. 11.30—Variety Music on Gramophone Records. 12.10 *a.m.* (*Thursday*) Close Down.

KALUNDBORG (Denmark)

Kalundborg Radio. 260 kc/s (1,153 m.); 7.5 kW.

See *Copenhagen*.

KATOWICE (Poland)

734 kc/s (408 m.); 16 kW.

Transmits at intervals from 11.58 a.m. 5.35 *p.m.*—Orchestral Concert. 8.0—Concert of Light Music. 9.10—Song Recital by Mathildé Polinska-Lewicka. 10.40—Light Music on Gramophone Records. 11.0—Answers to Correspondents in French.

LANGENBERG (Germany)

Westdeutscher Rundfunk. 635 kc/s (473 m.); 60 kW.

Transmits at intervals from 6.45 a.m. (Exercises, Weather, Time and Gramophone Concert).

11.10 *a.m.*—Programme for Schools: Gymnastics and Music Lesson.

12 *noon*—Gramophone Concert of Popular Music. 12.50 *p.m.*—Weather, Announcements and Time.

1.0—*Orchestral Concert*, conducted by Wolf. Titanen-Marsch (Heinecke). Overture, "Le Lac des Fées" (Auber). Little Orches-

tral Suite (Bizet). Ballet Music from "Rosamunde" (Schubert). Song without Words (Tchaikovsky). Invitation to the Dance (Weber). Shadow Dance from "Dinorah" (Meyerbeer). Potpourri, Offenbachiana (Conradi). Waltz, Märchen aus dem Orient (Strauss).
2.30—Sponsored Gramophone Concert. 3.30—Economic Notes and Time. 3.50—Programme for Children. 4.15—Book Review. 4.35—Talk: The Village Kindergarten.
5.0—Concert. 6.10—Talk arranged by the Post Office. 6.15—Talk on Administrative Questions. 6.40—Talk: Goethe in France. 7.0—Weather, Time, Economic Notes and Sports Results. 7.15—Health Talk. 7.30—Talk: What Everyone should know. 7.55—News Bulletin. 8.0—Programme to be announced.
8.40—The Second Act of "Siegfried"—Opera (Wagner) 10.0—News, followed by Concert. 12 *midnight* (approx.)—Close Down.

LEIPZIG (Germany)

1,157 kc/s (259 m.); 2 kW. Relayed by *Dresden*, 941 kc/s (319 m.). Transmits at intervals from 6.30 a.m.
6.10 *p.m.*—Educational Talk: The Child with Creative Agility. 6.35—Italian Lesson. 6.55—Talk (to be announced). 7.5—Talk: Methods of providing Work.
7.30—Operatic Concert by the Operatic Choir of the New Theatre and the Leipzig Symphony Orchestra, conducted by Conrad Neuger. Overture and Opening Chorus from "Orpheus and Eurydice" (Gluck). Overture and Priests' Chorus from "The Magic Flute" (Mozart). Overture and Chorus from "Der Waffenschmied" (Lortzing). Opening Chorus to the Second Act of "Czar and Carpenter" (Lortzing). The Bell Chorus from "I Pagliacci" (Leoncavallo). Gipsy Chorus from "Il Trovatore" (Verdi). Chorus from "Othello" (Verdi). Selections from "Masaniello" (Auber): (*a*) Overture, (*b*) Market Chorus, (*c*) Revolutionary Chorus and Prayer.
9.0—"Trommel, Trommel, Gong . . ."—a Poem of To-day—for Voices, Music and Sounds (E. Kurt Fischer).
10.5—News, followed by Dance Music from *Berlin* (*Witzleben*). 11.30 (approx.)—Close Down.

LJUBLJANA (Yugoslavia)

522 kc/s (574.7 m.); 2.5 kW.
Transmits at intervals from 12.15 p.m.
5.30 *p.m.*—Quintet Concert. 6.30—Humorous Programme. 7.0—Russian Lesson. 7.30—Literary Talk. 8.0—Music Lesson. 8.30—Quintet Concert. 10.0—Time Signal and News Bulletin.

LWÓW (Poland)

788 kc/s (381 m.); 16 kW.
Transmits at intervals from 11.45 a.m.
6.50 *p.m.*—Miscellaneous Items. 7.15—See *Warsaw*. 7.30—Literary Talk. 7.45—See *Warsaw*. 10.45—Talk: George Buchner, the German Poet of the Revolution. 11.0—See *Warsaw*. 12 *midnight* (approx.)—Close Down.

LYONS (France)

La Doua (PTT). 644 kc/s (465.8 m.); 1.5 kW.
Transmits at intervals from 8.0 a.m.
7.0 *p.m.*—*Popular Music on Gramophone Records*. Prelude and Entr'acte from "Carmen" (Bizet). Selections from (*a*) "La Favorita" (Donizetti), (*b*) "Manon" (Massenet), (*c*) "Rigoletto" (Verdi), (*d*) "Madame Butterfly" (Puccini), (*e*) "Primrose" (Caillavet-de Flers), (*f*) "Miss Decima" (Audran).
7.30—Radio Gazette for Lyons and the South East.
8.45—*Two Operettas*: (*a*) "*Les Deux Aveugles*" (Offenbach), (*b*) "*Clichy*" (Adam).

MADRID (Spain)

Union Radio (EAJ7). 707 kc/s (424.3 m.); 2 kW.
Transmits at intervals from 9.0 a.m.
8.0 *p.m.*—Chimes, Exchange, Market Prices and Request Gramophone Concert. 9.15–9.30—News and Political Review. 10.30—Chimes, Time, Political Review and "*Le Roi s'amuse*"—Play (Victor Hugo), arranged for the Wireless by Isaac Pachecho. 12.45 *a.m.* (*Thursday*)—News Bulletin. 1.0 (approx.)—Chimes and Close Down.

MILAN (Italy)

Ente Italiano Audizioni Radiofoniche. 905 kc/s (331.5 m.); 7 kW.
See *Turin*.

WEDNESDAY
continued

MORAVSKÁ-OSTRAVA (Czechoslovakia)

1,137 kc/s (263.8 m.); 11 kW.
Transmits at intervals from 11.0 a.m.
6.15 p.m.—Programme for Women. 6.25—See *Prague*. 10.50—Programme Announcements and Theatre Guide.

MOSCOW (Russia)

Trades Union. 230.1 kc/s (1,304 m.); 100 kW.
Transmits at intervals from 5.0 a.m.
4.0 *p.m.*—Proletariat Radio Journal. 5.0—Agricultural Report. 6.0—Programme to be announced.
8.0—Talk in Czech and Swedish: The Ninth Soviet Trades Union Congress, followed by Review of the Week's Events and Answers to Correspondents in French. 9.55—Chimes and Close Down.

MUNICH (Germany)

563 kc/s (533 m.); 1.5 kW. Relayed by *Augsburg* and *Kaiserslautern*, 536 kc/s (560 m.); and *Nürnberg*, 1,256 kc/s (239 m.).
Transmits at intervals from 6.45 a.m.
6.15 *p.m.*—Weather and Agricultural Report. 6.25 (from *Nürnberg*)—Talk: Gustavus Adolphus in Franconia, Swabia and Bavaria. 6.45—Talk for Women.
7.10—*Concert by Adolf Dentl's Zither Orchestra*. March, Münchner Leben (Dentl). Gavotte, Amors Traum (Dentl). Selections from "Il Trovatore" (Verdi). Ein Abend am Traunsee (Frank). Intermezzo, Charmant (Dentl). Hochzeitszug in Liliput (Translateur). Mussinan-Marsch.
7.40—Talk: German Contemporary History.
8.0—"My Sister and I"—Musical Play in Two Acts (Benatzky).
10.20—Time and News. 10.45—Dance Music from *Vienna*. 12 *midnight* (approx.)—Close Down.

OSLO (Norway)

Kringkastingselskapet. 277 kc/s (1,083 m.); 60 kW. Relayed by *Fredriksstad*, 816 kc/s (367.6 m.); *Hamar*, 536 kc/s (560 m.); *Notodden*, 671 kc/s (447.1 m.); *Porsgrund*, 662 kc/s (453.2 m.); and *Rjukan*, 671 kc/s (447.1 m.).
Transmits at intervals from 11.10 a.m.
5.0 p.m.—Chamber Music by the Philharmonic Quartet and Karl Andersen ('Cello). Quintet, Op. 163 (Schubert). 5.45—Review of Periodicals. 6.0—French Lesson. 6.30—Talk: With a Guide through the Oslo Museums. 6.50—Practical Hints for Spring. 7.0—Announcements, Weather and News. 7.30—Talk: World Economics after the War. 8.0—Time Signal.
8.2—Orchestral Concert of Old and Modern Operetta Music. 9.10—Talk on Mahatma Gandhi, relayed from *Bergen*, 825 kc/s (364 m.).
9.40—Weather and News. 10.0—Topical Talk. 10.15—Recitations. 10.45 (approx.)—Close Down.

PALERMO (Italy)

Ente Italiano Audizioni Radiofoniche. 554 kc/s (542 m.); 3 kW.
Transmits at intervals from 12.45 p.m.
5.30 *p.m.*—Dance Music relayed from the Olympia Tea-Room. 6.30—8.0—Interval. 8.0—News, Agricultural Notes and Giornale Radio.
8.20—Light Music on Gramophone Records. 8.30—Time Signal and News.
8.45—"Mefistofele"—Opera (Boito). In the interval, Talk and Literary Notes. 10.55—News and Close Down.

PARIS (France)

Eiffel Tower (FLE). 207.5 kc/s (1,445.7 m.); 13 kW.
Time Signals (on 2.650 m.), at 10.26 *a.m.* and 11.26 *p.m.* (preliminary and 6-dot Signals).
Transmits at intervals from 1.0 p.m.
6.45 *p.m.*—Talk on Music. 7.0—Le Journal Parlé. 8.20—Weather Report.
8.30—*Symphony Concert*, conducted by Edouard Flament. Soloist: M. Cantrelle (Violin). Selection from "Manon Lescaut" (Puccini). Mélopée (Grassi). Finale from the Concerto for Violin (Mendelssohn). 9.10—Topical Talk and News. 9.20—*Concert* (*continued*). Overture, "La Princesse jaune" (Saint-Saëns). Selection from "Eugen Onegin" (Tchaikovsky).

PARIS (France)

Poste Parisien. 914 kc/s (328.2 m.); 1.2 kW.
Transmits at intervals from 12 noon.
6.45 *p.m.*—News and Announcements. 7.0—Gramophone Records, Talks and News. 7.30—The Last Four Scenes of a "*Faust-Parody*," by the "Amis de Guignol à Paris." 8.30—Gramophone Records, Talk and News.
8.45—*Vocal and Orchestral Concert*. Overture, "La Dame Blanche" (Boieldieu). Valse Militaire (Waldteufel). Selection from "Le Jongleur de Notre-Dame" (Massenet). Ballet Music from "La Reine Fiammette" (Leroux). Selection from "La Traviata" (Verdi). Selection from "No, No Nanette" (Youmans). Napolitana (Lehár). March funèbre d'une marionnette (Ganne).
10.45—News Bulletin. 10.50 (approx.)—Close Down.

PARIS (France)

Radio-Paris (CFR). 174 kc/s (1,725 m.); 75 kW.
6.45 *a.m.*—Physical Culture Course. 7.30—Weather Report and Physical Culture (contd.). 7.45—Light Music on Gramophone Records. 8.0—News, Weather Report and Press Review. 12 *noon*—Talk: French Humanism.
12.30 *p.m.*—*Viennese Music on Gramophone Records*. Selection (Weczel), Selection from "The Dollar-Princess" (Fall). Waltz, Wine, Woman and Song (Johann Strauss). Mandoline Selection (Translateur). Selections from "Die Fledermaus" (Johann Strauss). Waltz, Gold and Silver (Lehár). Selection from "Paganini" (Lehár). Selection from "A Waltz Dream" (Oscar Straus). Songs from "Bitter Sweet": (*a*) Zigeuner, (*b*) I'll see you again (Coward). Waltz, Donauwellen (Ivanovici). Selection from "The Merry Widow" (Lehár). La Valse (Ravel). In the intervals at 1.0—Exchange Quotations, News and Weather Report, and 1.30 and 2.0—Exchange Quotations.
3.45—Exchange and Market Prices.
6.30—Market Prices, Weather Report, Agricultural Notes and Racing Results. 7.0—Talk.: The French Aspect of the Reparations Question.
7.30—Medical Talk. 7.45—Commercial Prices and News.
8.0—Manon—Opera (Massenet), relayed from the Opéra-Comique. In the first interval, News, Weather Report and Fashion Talk. In the second interval: Press Review and News.

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POZNAŃ (Poland)

896 kc/s (335 m.); 1.9 kW.
Transmits at intervals from 11.45 a.m. 6.50 *p.m.*—Miscellaneous Items and Announcements. 7.15—Educational Talk. 7.30—Literary Talk. 7.45—9.35—See *Warsaw*.
9.35—Violin Recital by Henri Marteau In the intervals, Theatre Guide. 10.20—See *Warsaw*. 10.35—Time Signal, Sports Notes and Police Report. 10.50—Dance Music from the Café "Esplanade." 12 *midnight* (approx.)—Close Down.

PRAGUE (Czechoslovakia)

614 kc/s (488.6 m.); 120 kW.
Transmits at intervals from 11.0 a.m. 4.10 *p.m.*—Orchestral Concert, relayed from *Moravská-Ostrava*. 5.10—Programme for Children, relayed from *Brno*. 6.0—Variety Music on Gramophone Records. 6.5—Agricultural Report. 6.10—Talk for Workers: Social Insurance in Czechoslovakia and Germany. 6.25—German Transmission: News and Talk for Workers. 7.0—News Bulletin. 7.20—Introductory Talk to the following Transmission.
7.30—"The Jacobin"—Opera in Three Acts (Dvorák), relayed from the National Theatre. In the interval at 9.0—Time and News. 10.0—Time and News. 10.15—Talk: The Sokol Congress. 10.20—Gymnastics. 10.50 Miscellaneous Announcements.

RADIO-SUISSE ROMANDE (SOTTENS) (Switzerland)

743 kc/s (403 m.); 25 kW.: *Lausanne*, 442 kc/s (680 m.); and *Geneva*, 395 kc/s (760 m.).
Transmits at intervals from 12.30 p.m. 4.31 *p.m.*—Orchestral Concert, conducted by Robert Echenard. 5.30 (from *Lausanne*)—Programme for Children. 6.30 (from *Geneva*)—Theatre Notes. 7.0—Weather Forecast.
7.1 (from *Lausanne*)—Cinema Organ Recital, relayed from the Capitol Theatre. 7.30 (from *Lausanne*)—Talk: The Vines and Wines of Valais. 7.55—Announcements. 8.0 (from *Geneva*)—Talk: The Work of the Disarmament Conference.
8.10 (from *Geneva*)—"*Should the Mandarin die?*"—Radio Play (Fleischmann), with Music by Marcel Poot.
8.50—Concert by the Station Orchestra, conducted by Fernand Closset. 10.0—Weather and News. 10.10 (from *Geneva*)—Report of the "Friends of Radio Geneva." 10.25 (from *Geneva*)—Dance Music, relayed from the "Moulin Rouge." 11.0 (approx.)—Close Down.

RIGA (Latvia)

572 kc/s (525 m.); 15 kW.
Transmits at intervals from 6.0 a.m. 4.0 *p.m.*—Concert by the Station Orchestra. Soloist: Roberts Viks (Baritone). 5.0—Economic Report. 5.30—Song Recital by Roberts Vizbulis. 6.0—*English Lesson*. 6.30—Agricultural Talk
7.5—*Concert from the Works of French Players*. Petite Suite (Debussy). Suite Villageoise (Dubois). Suite, Ascanio (Saint-Saëns).
8.0—News Bulletin. 8.20—Song Recital by Erna Puknas-Travins, from the Works of Medins and Rachmaninov. 8.40—Concert of Popular Music. 9.0—Weather and News Bulletin. 9.35—Concert of Light Music.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche (1RO). 680 kc/s (441 m.); 50 kW. Relayed by *Naples*, 941 kc/s (319 m.) and 2RO, 11,810 kc/s (25.4 m.).
8.15—8.30 *a.m.*—Giornale Radio and Announcements. 12 *noon*—Gramophone Records of Light Music.
12.35 *p.m.*—Weather Forecast.
12.45—*Vocal and Instrumental Concert*. Soloist: Giuseppina Marciano (Soprano). Soprano Solos: (*a*) Nacheta 'nzera, 'nzera 'nza (Montanaro), (*b*) La Rosina (Ricordi), (*c*) I manin (Sadero), (*d*) Ninna nanna romagnola (Pratella), (*e*) Tarantella napoletana (Sadero). Selection from "The Blacksmith" (Paër). Selections (Vittadini): (*a*) Idilliaca, (*b*) Settecentesca. L'amore e un tango (Ranzato). Selection from "Werther" (Massenet-Tavan). Dammi un bacio (Firpo). Passione (Sinigaglia). In the intervals at 1.15—Giornale Radio and Exchange and at 1.30—Time and News.
2.0—5.0—Interval. 5.0—Exchange, Report of the Royal Geographical Society, Programme for Children, Giornale Radio and Announcements.
5.30—*Duet Recital*, by Alda Masi (Soprano) and Luisetta Castellazzi (Mezzo-Soprano). Barcarolle from "The Tales of Hoffmann" (Offenbach). Canto di villanelle senesi (Molfetti). Selection from "Lakmé" (Delibes). Stornelli estivi (Baldacci).
5.45—Concert of Light Music. 6.15—Giornale dell' Enit. 6.20—Botanical Talk. 6.35—6.55—Interval. 6.55 (from *Naples*)—Shipping News and Sports Notes. 7.0—Agricultural Report, Weather, Announcements, Giornale Radio and Press Review.
8.0—Time, News and Gramophone Records of Variety Music. 8.15—Medical Talk.
8.45 (approx.)—Transmission of an Opera. In the intervals, Talk: The Japanese Theatre, and Review of Reviews. After the Programme, News.

SCHENECTADY (U.S.A.)

General Electric Company (WGY). 790 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,530 kc/s (31.48 m.) and by W2XAD on 15,340 kc/s (19.56 m.).
Transmits at intervals from 11.45 a.m.
8.30 *p.m.*—Woman's Radio Review, from *New York*. 9.0—The Pilgrims, from *New York*. 9.30—Wrigley Programme from *New York*. 9.45—Musical Ad Men. 9.55—News Items. 10.0—Stock Reports and Police Notices. 10.15—11.0—*New York* Relay. 10.15—Skippy. 10.30—Wayne King's Orchestra. 10.45—Soloist. 11.0—"When The Day is Done" Programme. 11.30—New Kenmore Orchestra. 1.45—The Banjoleers. 12 *midnight* (WGY only)—New York State Educational Series. 12 *midnight* (W2XAF only)—Stock Reports and News Items.
12.15 *a.m.* (*Thursday*)—3.30—*New York* Relay. 12.15—Musical Programme. 12.30—Prince Albert Quarter Hour. 12.45—Trials of the Goldbergs. 1.0—"Big Time." 1.30—Halsey Stuart Programme. 2.0—Goodyear Programme. 2.30—Mobiloil Concert. 3.0—Coca Cola Programme.
3.30—N.B.C. Artists Service Musicale. 4.0—Nellie Revell—Interview, from *New York*. 4.15—Songs my Mother Taught me. 4.30—DeWitt Clinton Orchestra. 5.0—Ralph Kirbery (Baritone). 5.5—Buddy Rogers and his Californian Cavaliers from *New York*. 5.30—New Kenmore Orchestra. 6.0 (approx.)—Close Down.

SCHWEIZERISCHER LANDESSENDER (BEROMÜNSTER) (Switzerland)

653 kc/s (459 m.); 60 kW.; *Basle*, 1,229 kc/s (244.1 m.); and *Berne*, 1,220 kc/s (246 m.).
12.28 *p.m.*—Time Signal from Neuchâtel Observatory. 12.30—Weather Report and News.
12.40—*Tchaikovsky Concert on Gramophone Records*. Overture, 1812. Violin Concerto, played by Hubermann.
1.35—Weather Report and Exchange Quotations. 1.45—3.30—Interval.
3.30—Concert by the Station Orchestra. 4.0—Military Band Concert, relayed from *Langenbruck*. 5.0 (from *Basle*)—Programme for Children.
5.30—Weather Report and Market Prices. 5.45—6.30—Interval. 6.30—Concert of Popular Swiss Music on Gramophone Records. 7.0 (from *Berne*)—Talk on Photography. 7.28—Time Signal and Weather Report.
7.30 (from *Berne*)—Programme of Popular Ballads from Old Vienna, presented by Wilhelm Klitsch. 8.0—(from *Basle*)—Introductory Talk to the following transmission.
8.15—Concert by the Basle Chamber Orchestra and Choir, relayed from St. Martin's Church. Soloists: Walter Kägi (Violin) and Claire Levy (Cembalo). Programme from the Works of Palestrina, Anerio, Lotti, Orlando di Lasso, Bach, Charpentier and Schütz. 10.0—Weather Forecast and News. 10.15—(from *Basle*)—Listeners' Quarter of an Hour. 10.30 (approx.)—Close Down.

STOCKHOLM (Sweden)

Radiotjänst (SASA). 689 kc/s (436 m.); 55 kW. Relayed by *Boden*, 244 kc/s (1,229.5 m.); *Göteborg*, 932 kc/s (322 m.); *Hörby*, 1,166 kc/s (257 m.); *Motala*, 222.5 kc/s (1,348 m.); *Östersund*, 389 kc/s (770 m.) and *Sundsvall*, 554 kc/s (542 m.).
Transmits at intervals from 7.20 a.m. (Gymnastics and Service).
5.0 *p.m.*—Accordion Music. 5.25—Reading (Anna-Lenah). 5.45—Popular Gramophone Music. 6.45—Agricultural Report. 7.15—Weather and News.
7.30—"*High Play*"—One Act Play (Denys Amiel).
8.0—**Hugo Alfvén Concert, conducted by the Composer**, relayed from the Concert House. Symphony No. 4 in C Minor. Suite from "Bergakungen." Two Songs with Orchestra: (*a*) Skogen sover, (*b*) Serenade. Swedish Rhapsody, No. 2.
9.30—Reading. 9.45—Weather and News. 10.0—Dance Music Programme. 11.0 (approx.)—Close Down.

STRASBOURG (France)

Radio-Strasbourg (PTT.) 869 kc/s (345 m.); 11.5 kW.
11.30 *a.m.*—Variety Music on Gramophone Records. 12.45 *p.m.*—News in French and German. 1.0—Time Signal.
1.1—*Gramophone Concert*. Siegfried Idyll (Wagner). Feux d'Artifice (Debussy). Jeux d'eau (Ravel). Sonata in C Minor (Bach). Mazurka Op. 33 (Chopin). Waltz (Chopin). Solemn Overture (Tchaikovsky).
4.45—Talk in German; The Electrification of Railways.
5.0—*Dance Music*. Onestep (Fenstad). Foxtrot, You forgot your gloves. Slow Foxtrot, Guilty. Waltz, City of Love. Foxtrot, Gold River. Tango, Ines. Foxtrot, Rhymes. Rumba, Siboney. Foxtrot. Waltz, The Blue Bird. Foxtrot, Yes! Yes! Foxtrot, Bend down Sister. Tango, Oh, Margarita. Foxtrot, Slow Foxtrot, Sweet and lovely. Foxtrot, Tiptoe through the Tulips. Onestep, Chanson du Facteur (Chantrier).
6.0—Talk in French: The Beginnings of Opera in Italy. 6.15—Medical Talk in German.
6.30—*Gramophone Concert*. Pastoral Suite (Scassola). Minuet (Mozart). Selection from "Cosi fan tutte" (Mozart). Overture, "Poet and Peasant" (Suppé). The Merry Pranks of Till Eulenspiegel (Richard Strauss). Hymn to the Sun (Rimsky-Korsakoff). Hindu Song (Rimsky-Korsakov). Ideale (Tosti). Les Deux Cœurs (Fontenailles). Get Happy (Seymour). A Big Bouquet for you (Hilen).
7.30—Time Signal. 7.31—News in French and German.
7.45—*Gramophone Concert*. Erste Begegnung (Grieg). Valse triste (Sibelius). Overture, "The Barber of Seville" (Rossini). Jealousy (Gade). Song (Merquita). Two Selections (Aurelli). Rêverie (Hahn). May (Hahn). Accordeona (Gardoni). The Return of the Mazurka (Selling). Lake Como (Puig).
8.30—"**L'amour mouillé**"—**Opéra Comique in Three Acts (Varney).**
10.30—Dance Music from the Savoy.
12 *midnight* (approx.)—Close Down.

STUTTGART (MÜHLACKER) (Germany)

Süddeutscher Rundfunk. 832 kc/s (360.5 m.); 60 kW. Relayed by *Freiburg*, 527 kc/s (570 m.).
Transmits at intervals from 6.0 a.m. (Time, Weather and Gymnastics).
10.0 *a.m.*—*Chamber Music for Wind Instruments (on Gramophone Records)*. Quintet for Flute, Oboe, Clarinet, Bassoon and Horn, Op. 81 (Onslow). Divertimento No. 8 in F Major for Flute, Oboe, Clarinet, Bassoon and Horn (Mozart). Quintet for Flute, Oboe, Clarinet, Bassoon and Horn, Op. 23 (Lendvai).
11.0—News, Time and Weather.
11.15—11.30—Sponsored Gramophone Records. 12 *noon*—Concert of New Sound Film Music on Gramophone Records. 12.50 p.m.—Time, News, Programme Announcements and Weather.
1.0—Concert from *Munich*. 1.55—Announcements. 2.0—2.15—Sponsored Gramophone Records.
3.30 (from *Karlsruhe*)—"*Neues vom Daumesdick*"—a Fairy Play in Seven Scenes (Lili Martini). 4.30—Talk: Observations on Australia.
5.0—*Concert by the Radio Orchestra*, conducted by Gustav Görlich. Soloists: Maria Geiger (Soprano) and Artur Haagen (Pianoforte). *Part I. The Works of Brahms*. Soprano Solos: (*a*) Lament (Bohemian), (*b*) Lament (Slovakian), (*c*) Farewell (Bohemian), (*d*) The Maiden (Serbian), (*e*) Rash Vow (Serbian). Two Intermezzi, Op. 117, for Pianoforte. *Part II*. March from "Boccaccio" (Suppé). Selection from "Countess Maritza" (Kálmán). Overture, "A Night in Venice" (Johann Strauss).
6.15—Time and Agricultural Notes.
6.25—Esperanto Lesson. 6.50—Talk on the Fiftieth Anniversary of the Death of Emerson. 7.15—Time and Weather.
7.30—**Two Radio Sketches**: (*a*) "*Riviera Express*"—a Comedy for the Radio (Heinz Vollmer), (*b*) "*The Voice*"—a Radio Play (Marten Cumberland).
8.0 (from *Freiburg*)—*Concert by the Freiburg Concert Orchestra*, conducted by Oskar Fried. Overture, "The Return of Tobias" (Haydn). Minuet from the Flute Concerto (Mozart). Suite aus galanter Zeit (Klaas). Overture, "Die schöne Galathée" (Suppé).
9.0—See *Frankfurt*. 10.20—News, Time, Programme Announcements, Weather and Silent Night for Distant Reception.

TOULOUSE (France)

Radiophonie du Midi. 779 kc/s (385 m.); 8 kW.
Transmits at intervals from 12.45 p.m. 5.0 *p.m.*—Picture Transmission. 5.15—Orchestral Selection: Symphony in E (Beethoven). 5.30—News Bulletin.
5.45—*Orchestral Music*. Le pas des écharpes (Chaminade). Frühling (Lincke). Cinderella's Wedding Procession (Dicker). Gipsy Song. The Kiss (Arditi). Les Millions d'Arlequin (Drigo).
6.6—*Songs from Operettas*. Selection from "Les Cloches de Corneville" (Planquette). Selections from "The Czardas Princess" (Kálmán). Selections from "Le Comte obligado" (Moretti).
6.15—Dance Music. 6.30—News and Exchange.
6.45—'*Cello Solos*. Abendlied (Schumann). Serenade (Samazeuilh). La Cinquantaine (Marie). Nocturne in E Flat (Chopin). Selection from "Fortunio" (Messager).
7.0—Talk. 7.15—Light Music.
7.30—News and Racing Results.
7.45—Military Music. 8.0—Accordion Solos.
8.15—*Opera Concert*. Selection from "Cavalleria rusticana" (Mascagni). Overture, "Mignon" (Thomas). Arias from "The Valkyries" (Wagner), "Siegfried" (Wagner) and "Il Trovatore" (Verdi).
8.45—*Viennese Music*. Waltz: Wine, Woman and Song (Johann Strauss). Selection from "Gipsy Love" (Lehár). Selection from "The Gipsy Baron" (Lehár). Waltz, Ever or Never (Waldteufel).
9.0—Concert arranged by the Society "La Toulousaine." In the interval, Light Music. 10.30—News Bulletin.
10.45—Popular Songs.
11.0—*Concert*. Waltz, Donauwellen (Ivanovici). Les roses (Metra). La Tour Eiffel s.v.p. (Bach and Laverne). Auteuil-Longchamp (Moretti). Sous les Toits de Paris (Moretti). Souvenir de Suisse (Boieldieu). Selection from "La Dame blanche" (Boieldieu). Pensée d'automne (Massenet). Waltz from "The Merry Widow" (Lehár). Selection from "Countess Maritza" (Kálmán). Danse macabre (Saint-Saëns). In the interval at 11.15—North African News. 12 *midnight*—Weather. Announcements and Close Down.

TRIESTE (Italy)

Ente Italiano Audizioni Radiofoniche. 1,211 kc/s (247.7 m.); 10 kW.
Transmits at intervals from 8.15 a.m
7.5 *p.m.*—*Quintet Concert*. Overture, "Alessandro Stradella" (Flotow). Ke-Sa-Ko (Chapuis). When the Moon laughs (Winter). Dinah (Davis). Colibri (Montanari). Waltz from the Suite "Ballet Divertissement" (Blattermann). Selection (Kapplusch).
8.0 till Close Down.—See *Turin*.

TURIN (Italy)

Ente Italiano Audizioni Radiofoniche. 1,096 kc/s (273.7 m.); 7 kW. Relayed by *Milan*, 905 kc/s (331.5 m.), and *Genoa*, 959 kc/s (312.8 m.). Transmits at intervals from 8.15 a.m.
7.5—*Programme of Popular Music*. Overture, "Don Giovanni" (Mozart). Selection (Silvery). Harlequin's Dance (Wachs). Amata Luna (Raffaelli).
7.30—Time Signal and Programme Announcements. 7.31—Light Music on Gramophone Records. 8.0—Giornale Radio and Weather Report.
8.15—Medical Talk. 8.30—Variety Music on Gramophone Records.
8.45—**A Comedy (to be announced).**
11.0—Giornale Radio.

VIENNA (Austria)

Radio-Wien. 581 kc/s (517 m.); 15 kW. Relayed by *Graz*, 852 kc/s (352.1 m.); *Innsbruck*, 1,058 kc/s (283 m.); *Klagenfurt*, 662 kc/s (453.2 m.); *Linz*, 1,220 kc/s (246 m.), and *Salzburg*, 1,373 kc/s (218 m.).
Transmits at intervals from 9.20 a.m.
4.45 *p.m.*—*Song and Pianoforte Recital* by Jella Braun-Fernwald (Mezzo-Soprano), Hanns Peterka (Baritone), and Hilde Adler (Pianoforte). Mezzo-Soprano Solos (Robert Franz): (*a*) Wenn zwei voneinander scheiden, (*b*) Wasserfahrt, (*c*) Es ragt ins Meer der Runenstein, (*d*) Ach, wie komm' ich da hinüber, (*e*) Trube wird's, die Wolken jagen, (*f*) Meeresstille, (*g*) Frühlingsliebe, (*h*) Er ist gekommen. Baritone Solos: "Dances of Death" (Moussorgsky): (*a*) Trepak, (*b*) Cradle Song, (*c*) Serenade, (*d*) The Field Marshal. Pianoforte Solos: (*a*) Minstrels (Debussy), (*b*) Serenade for the Doll (Debussy), (*c*) Les Collines d'Anacapri (Debussy), (*d*) Ondine (Ravel), (*e*) Sonatina (Ravel), (*f*) Italian Caprice, Napoli (Poulenc).
6.0—The Vienna Festival Weeks—Talk by Dr. Wilhelm Kienzl: The International Violin and Singing Contest. 6.10—Health Talk: The Heart. 6.30—Talk: The Reconstruction of Industry. 6.50—French Lesson. 7.20—Time Signal, Weather and Programme Announcements.
7.30—Concert of Light Music by Marek Weber and his Orchestra.
8.45—"**On the Way — In the Anteroom — In the Salon**" **A Sketch.**
9.10—"*Il Faut qu'une Porte soit ouverte ou fermée*"—**One Act Play (de Musset).** 9.45—News, Weather and Announcements. 10.0—Dance Music by the Charly Gaudriot Orchestra.

WARSAW (Poland)

Polskie Radio, 212.5 kc/s (1,411 m.); 120 kW.
11.20 *a.m.*—Aviation Weather Report. 11.25—Interval. 11.45—Press Review. 11.58—Time Signal and Bugle Call from the Tower of St. Mary's Church, *Cracow*.
12.5 *p.m.*—Programme Announcements. 12.10—Light Music on Gramophone Records. 1.20—Weather Report. 1.25—Interval. 1.35—Popular Music on Gramophone Records. 1.55—Interval.
2.45—Popular Music on Gramophone Records. 3.5—Economic Report and Exchange Quotations. 3.15—Scouts' Report. 3.20—Co-operative Notes.
3.25—Talk on History: The Polish Army under Napoleon. 3.45—Hydrographic Report. 3.50—Literary Talk: Stefan Zeromsky. 4.10—Interval.
4.15—Sports Notes. 4.20—Book Review. 4.40—Light Music on Gramophone Records. 4.55—*Linguaphone English Lesson*. 5.10—Talk, relayed from *Wilno*, 533 kc/s (563 m.).
5.35—*Concert by the Station Orchestra*, conducted by Josef Oziminsky. March (Dvorakovsky). Polish Airs (Brzezinsky). Rêve après le Bal (Gillet). Slavonic Dance in E Minor (Dvorák). Waltz, Wo die Zitronen blühen (Johann Strauss). Gavotte (Gossec). Cracovienne (Noskovsky). Trepak (Tchaikovsky) Hungarian Dance in A Minor (Brahms). Minuet (Mozart). Pizzicato Polka from "Sylvia" (Delibes). Czardas from "Der Geist des Wojewoden" (Grossmann). Selection (Namislovsky). Couiaviennes (Lada). Mazurka (Namislovsky).
6.50—Miscellaneous Items. 7.15—Agricultural Report. 7.25—Programme Announcements. 7.30—Sports Notes. 7.35—Light Music on Gramophone Records. 7.45—Radio Journal.
8.0—Concert of Light Music and Songs by the Wolga Orchestra and Soloists, relayed from the Café Ziemianska. 8.55—Literary Reading.
9.10.—Song Recital by Mme. Polinska-Lewicka, accompanied by Louis Urstein. Deception (Karlowicz). Song (Lipsky). Air from "Mefistofele" (Boito). Two Songs (Nieviadomsky). Air from "The Marriage of Figaro" (Mozart). Air from "Manon" (Massenet).
9.40—**Violin Recital by Henri Marteau**, accompanied by Louis Urstein. Sonata (Mozart). Träumerei (Schumann). Cavatina (Raff). Two Caprices (Marteau). Fantasia on Themes from "Carmen" (Bizet-Sarasate).
10.20—Radio Journal. 10.35—Weather Report and Police Notes.
10.40—Interval. 10.45—*Talk in English*: The Polish Petrol Industry.
11.0—Dance Music relayed from the Oaza Café. 12 *midnight* (approx.)—Close Down.

WILNO (Poland)

533 kc/s (563 m.); 16 kW.
Transmits at intervals from 11.58 a.m. 6.50 *p.m.*—Social Work Review. 7.0—Lithuanian Agricultural Report. 7.15—Light Music on Gramophone Records. 7.20—Topical Talk. 7.30—See *Warsaw*. 7.35—Programme Announcements and Miscellaneous Items. 7.45—See *Warsaw*. 8.0—Talk on Music. 8.15—Concert of Polish Music. 8.45—Light Music on Gramophone Records. 8.55—See *Warsaw*. 10.45—Organ Music on Gramophone Records. 11.0—See *Warsaw*. 12 *midnight* (approx.)—Close Down.

WEDNESDAY continued

THURSDAY (April 28)

PRINCIPAL EVENTS

SYMPHONY CONCERTS

8.0 p.m. Stockholm: Swedish music.
8.10 ,, Copenhagen.
8.25 ,, Hilversum: "The Seasons" (Haydn) (Mengelberg).
8.30 ,, Breslau: (continued at 9.20).

CONCERTS (Vocal and Instrumental)

12.35 p.m. Warsaw: Philharmonic (to Schools).
8.0 ,, Brussels No. 2.
8.45 ,, Rome: Italian music.
9.5 ,, Munich: "From the Gavotte to Jazz."
9.10 ,, Heilsberg: Choir.
10.0 ,, Warsaw: Farewell programme by prize-winners in the Chopin competition.
10.15 ,, Oslo: Norwegian programme.
10.20 ,, Hamburg: Concert of Dance Music.

OPERAS AND OPERETTAS

7.30 p.m. Budapest: "Tiefland" (D'Albert).
8.0 ,, Stuttgart, Frankfurt: "The Apothecary" (Haydn).
8.0 ,, Leipzig, Königs Wusterhausen: "Orlando Paladino" (Haydn).
8.10 ,, Vienna and Swiss stations: "I Masnadieri" (Verdi).
8.30 ,, Langenberg: "Siegfried" (Wagner); Act III.
8.30 ,, Radio-Paris: "Nina Rosa" (Romberg).
9.0 ,, Italian stations (Northern): Opera relay.

CHAMBER MUSIC

8.30 p.m. Strasbourg.
10.30 ,, Berlin (Witzleben), Königs Wusterhausen: String Quintets (Haydn, Mozart).

TALK

7.30 p.m. Heilsberg: The town of Heilsberg.

DANCE MUSIC

10.30 p.m. Copenhagen: (till 12.30).

Two Wagner Heroines

The heroines of opera are usually victims of a cruel fate, and only one of Wagner's is an exception to the stern rule; Elsa, in *Lohengrin*, and Elisabeth, in *Tannhäuser*, both die in the spring-tide of youth.

Wagner

Elsa's brother, the young Duke of Brabant, has mysteriously disappeared, and Elsa is accused by Telramund, scheming to win the Dukedom for himself, of murdering the boy. Arraigned before the King, Henry the Fowler, and his Court, Elsa falls into a trance and recounts how in a dream she had appealed for aid to Heaven and how a noble knight had come to defend her. In *Tannhäuser*, at the beginning of the second Act, Elisabeth comes, after a long absence from it, to the Hall in which the tournaments of song are held. Since Tannhäuser's mysterious desertion of the Court, she had lost interest in the Hall and its associations. But now she has learned from her guardian, the Landgrave, that Tannhäuser has returned to the company of his fellow minstrel-knights and that once more a great tournament of song is to be held. In an exultant song she tells of her joy in coming once more into the well-remembered place. These two excerpts are to be sung in the COPENHAGEN programme this evening.

The Seventh

To musicians the wide world over, these two words are enough to make it clear that it is Beethoven's Symphony No. 7, in A, which is in question. It is to be broadcast by COPENHAGEN this evening, and by WARSAW at 12.15 on Sunday. It was heard for the first time at an all-Beethoven concert which he conducted himself in Vienna in 1813. Organised by Maëlzel, remembered now only by the metronome which bears his name, the concert had the charitable object of raising money for the Austrians wounded at Hanau in the attempt to cut off the French retreat after the battle of Leipzig. Maëlzel appeared on the platform himself with a mechanical trumpet-player of his own invention: it played two marches written for it by Beethoven. The symphony won an instant success, and the second movement was encored—a tribute rarely accorded at the first performance of a symphony. It has ever since been one of the most popular of the nine—a very good second to No. 5. It has a long introduction, lovingly expanded by Beethoven: only gradually does it lead to the main brisk (*allegro*) part of the movement, irresistible in its freshness and gaiety. The second begins with a steady march rhythm, above which violas and 'cellos together play one of Beethoven's noblest melodies. Another melody, contrasting joyously with the solemnity of the first, is introduced by clarinet. The next movement is in the form of a scherzo and trio, although Beethoven did not call it so. It begins at once with a merry theme, and the tune of the trio is based, so we are told, on an old pilgrim song which originally came from Austria.

The last movement brims over with wholesome laughter and bustling good spirits; almost breathless in its haste, it is among the most entirely happy things which Beethoven gave us.

Haydn

Two of whose operas are being broadcast this evening,—*The Apothecary*, from Stuttgart and Frankfurt, and the three-act *Orlando Paladino* (*Ritter Roland* in Germany) from LEIPZIG, relayed by KÖNIGS WUSTERHAUSEN. Both broadcasts are at 8 o'clock.

NATIONAL

	kc/s.	m.	kW.
London:	1,148	261.3	50
Daventry:	193	1,554.4	30
Northern:	995	301.5	50

10.15 *a.m.*—The Daily Service
10.30—10.45—Time Signal (Greenwich), Shipping Forecast.
12 *noon*—The Edinburgh Studio Orchestra, directed by Guy Daines.
1.0 *p.m.*—Time Signal (Greenwich).
1.0—The Shepherd's Bush Pavilion Orchestra, directed by Harry Fryer.
1.45—2.0—"The Problem of the Difficult Child"—XI.
2.5—For Senior Pupils. "Tracing History Backwards"—II.
2.25—Interval.
2.30—Speech Training. Mr. A. Lloyd-James.
2.50—Interval.
3.0—3.45—Evensong from Westminster Abbey.
4.0—The B.B.C. Dance Orchestra.
4.30—The Midland Studio Orchestra.
4.45—Time Signal (Greenwich).
5.15 (Daventry)—The Children's Hour.
5.15 (London and Northern)—Dance Music. Joe Kaye and his Orchestra.
6.0—"The First News."
6.30—Time Signal (Greenwich).
6.30—The Foundations of Music. Handel's Pianoforte Music.
6.50—German Talk. Mr. Otto Siepmann.
7.20—Major-Gen. The Right Hon. J. E. B. Seely: "The Savings Certificate Conversion Campaign."
7.30—"The Growth of the Modern World Order"—III.
9.0—Time Signal (Greenwich).
8.0—The Wireless Military Band. Webster Gibson (Tenor).
9.0—Time Signal (Greenwich).
9.0—"The Second News."
9.20—"The Way of the World." Mr. Vernon Bartlett.
9.35—The Wireless Singers. Mrs. Norman O'Neill (Pianoforte).
10.30—A Short Service relayed from St. Michael's, Chester Square.
10.45—12 *midnight*—Dance Music.
11.30—Time Signal (Greenwich).
12 *midnight*—12.5 *a.m.* (*Friday*)—Experimental Transmission by the Fultograph Process.

REGIONAL

	kc/s	m.	kW.
London:	842	356.3	50
Midland:	752	398.9	25
Northern:	626	479.2	50

10.15 *a.m.* (London and Northern)—The Daily Service.
10.30—10.45 (London and Northern)—Daventry National Programme.
11.30—12 *noon* (London)—Experimental Television Transmission (Baird Process).
12—Edward O'Henry at the Organ.
1.0 *p.m.*—The Northern Studio Orchestra. Doris Brown (Soprano).
2.0—3.0—Laddie Clarke's Imperial Hydro Hotel Orchestra.
4.0 (London and Northern)—Daventry National Programme.
5.15—The Children's Hour.
6.0—"The First News."
6.30—Regional Bulletin for Farmers.
6.35 (London)—Reginald King and his Orchestra. Betsy de la Porte (Contralto).
6.35 (Midland)—Light Music. Pattison's Salon Orchestra, under the direction of Norris Stanley.
6.35 (Northern)—The Studio Orchestra.
6.40 (Northern)—A Relay from The Argyle Theatre, Birkenhead.
8.0—"New Songs for Old." A Programme arranged by Gordon McConnel and Christopher Stone. Cast: Stuart Robertson, Olive Groves, Denis O'Neil. The Revue Chorus and The B.B.C. Theatre Orchestra, conducted by Leslie Woodgate. Compère, Christopher Stone.
9.0 (London)—An Orchestral Concert. John Armstrong (Tenor). The B.B.C. Orchestra (Section C), conducted by Victor Hely-Hutchinson.
9.0 (Midland)—The Studio Orchestra, directed by Frank Cantell. Muriel Cornock (Soprano). Walter Heard (Flute and Piccolo).
9.0 (Northern)—The Studio Orchestra, directed by John Bridge.
10.15—"The Second News."
10.35—Dance Music.
11.0—Broadcast to America. "The Eternal Schoolboy: School Life in Britain."
11.15—12 *midnight*—The B.B.C. Dance Orchestra.

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)

825.3 kc/s (363.3 m.); 13 kW.
Transmits at intervals from 12.30 p.m.
7.0 *p.m.*—Military Music. 7.10—Financial Notes and Exchange Quotations. 7.20—Shipping Report and Weather Forecast. 7.25—Two Tangos. 7.30—Talk: "Curiosities and Recreations." 7.40—Fantasia and Fugue in G Minor (Bach). 7.55—News and Time Signal.
8.0—*Song Recital* by Mme. Luccioni, with the collaboration of M. Germain-Thill (Pianoforte). Songs: (*a*) Aria from the Whitsun Cantata (Bach), (*b*) Song from "Alceste" (Gluck). Pianoforte Solo: Summer Twilight, from "En Bretagne" (Rhené-Baton) Songs: (*a*) Tristesse, and (*b*) Lithuanian Song (Chopin). Clouds (Georges). Pianoforte Solos: Selection from "En Bretagne" (Rhené-Baton). Song: Nicolette (Ravel). Selection (Germain-Thill). Two Songs from "Le Jardin des Caresses" (Pérez). Pianoforte Solo: Easter Sunday from "En Bretagne" (Rhené-Baton). Songs: (*a*) Russian Poem (Erlanger), (*b*) Léa's Aria from "The Prodigal Son" (Debussy).
9.0—Talk: "The Life and Work of Frédéric Mistral," with Musical illustrations.
9.45—Jazz Songs. 10.0 (approx.)—Close Down.

BARCELONA (Spain)

Radio-Barcelona (EAJ1). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 8.30 a.m.
8.0 *p.m.*—*Concert by the Station Trio.* Violin Solo: Aubade (Caludi). Selection from "Miss Decima" (Audran). Romance (César Cui). Ballet (Almayrac).
8.30—Exchange Quotations and *Advanced English Lesson.* 9.0—Request Concert on Gramophone Records and News Bulletin. 10.0—Chimes, Weather Forecast, Exchange Quotations and Market Prices.
10.5—*Concert by the Station Orchestra.* Overture, "La Princesse Jaune" (Saint-Saëns). Le Festin de l'Araignée (Roussel).
10.20—Dance Music by a Jazz Orchestra. 11.0—"*The Enigma*"—Drama in Three Acts (Paul Hervieau). 1.0 *a.m.* (*Friday*)—Close Down.

BELGRADE (Yugoslavia)

697 kc/s (430.4 m.); 2.5 kW.
Transmits at intervals from 11.10 a.m.
7.0 *p.m.*—French Lesson. 7.30—Talk (to be announced). 8.0—Concert of Sacred Music. 9.0—News and Sports Notes.

BERLIN (Germany)

Königs Wusterhausen. 183.5 kc/s (1,635 m.); 60 kW.
Transmits at intervals from 5.45 a.m.
12 *noon*—Weather for Farmers, followed by Gramophone Concert of Famous Overtures, and Second Weather for Farmers. 12.35 *p.m.*—Nauen Time Signal. 1.30—News Bulletin. 2.0—Gramophone Records of Concert, Operatic and Military Marches, from *Berlin* (*Witzleben*). 3.0—Programme for Children. 3.30—Weather Forecast and Exchange Quotations. 3.45—Talk for Women: Discretion. 4.0—Educational Talk. 4.30—See *Berlin* (*Witzleben*). 5.30—Talk: A Chapter from the History of the Abolition of Slavery. 6.0—Talk: Burial Mounds in the Ems District. 6.30—Advanced Spanish Lesson. 7.0—Agricultural Talk. 7.30—Talk: Pictures of Modern Russia—the Life and Work of a German Worker in Russia. 7.55 (approx.)—Weather for Farmers.
8.0—See Leipzig. 10.0—News Bulletin. 10.30—See *Berlin* (*Witzleben*).
12.30 *a.m.* (*Friday*)—Close Down.

BERLIN (Germany)

Witzleben. 715 kc/s (419.5 m.); 1.5 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics and Gramophone Concert).
4.30 *p.m.*—*Recital of Modern Pianoforte Music and Songs.* Seven Little Pianoforte Pieces, Op. 19 (Gerlach). Songs (Gerlach) accompanied by the Composer: (*a*) Gebet an die Nacht, (*b*) Tausend stille Ströme, (*c*) Die Fahrt, (*d*) Muttertränen, (*e*) Das hohe Lied der Arbeit. Intrada from the Serenade (Zillig). Three Pianoforte Pieces, Op. 31 (Tiessen): (*a*) Andante, (*b*) Amsel, (*c*) Ein Sperling in die Hand des Eduard Erdmann!
5.10—*Tenor Song Recital* by Mario Salecki. Songs from (*a*) "Le Cid" (Massenet), (*b*) "Eugen Onegin" (Tchaikovsky), (*c*) "The Girl of the Golden West" (Puccini) and (*d*) "Manon" (Puccini).
5.30—Talk for Children. 5.50—Talk: The Labour Tribunal. 6.10—Talk: Plastic Art. 6.20—Debate: The Rise or Decline of the Bourgeoisie? 6.55—"The Witzleben Station informs its Listeners . . ."
7.0—Talk: The Agricultural Policy of the Past Few Years. 7.25—Reading. 7.40—Choral Concert. 8.0—Cabaret Programme. 9.0—News and Sports Notes.
9.10—**String Quintet Concert.** Quintet in C Major, Op. 88 (Haydn). Quintet in D Major (Mozart).
10.10—Weather, News and Sports Notes.
10.30—**Concert for the Fiftieth Anniversary of the Klindworth-Scharwenka Conservatoire** by Pupils of the Conservatoire. Pianoforte Quintet in A Major—First Movement (Dvorak). Concert Etude for Pianoforte (Liapounov). Mezzo-Soprano Solos (Ravel) by Helge Kolbe: (*a*) Le paon, (*b*) Le cygne. Suite for Violin and Pianoforte (Brenner). Contralto Solo by Margot Ruth Glant: Aria from "The Messiah" (Händel). Prelude and Allegro for Violin and Pianoforte (Pugnani-Kreisler). Pianoforte Solos: (*a*) Two Etudes, in F Minor and F Major (Chopin), (*b*) Etude in F Sharp Minor (Scriabin), (*c*) My Joys (Chopin-Liszt); followed by Dance Music from the Hotel Esplanade. 12.30 *a.m.* (*Friday*)—Close Down.

BORDEAUX-LAFAYETTE (France)

(PTT). 986 kc/s (304 m.); 13 kW.
Transmits at intervals from 12.45 p.m.
7.30 *p.m.*—News and Exchange. 7.40—Talk arranged by the International Labour Office. 7.55—Lottery Results. 8.0—Request Programme of Gramophone Records and Charades. 8.15—News Bulletin and Weather Forecast. 8.30—Light Music on Gramophone Records.
9.0—"*Hamlet*"—Tragedy in Five Acts (Shakespeare). After the Programme, Bordeaux Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)

1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 11.0 a.m. 6.5 *p.m.*—Concert of Popular Music, relayed from the Museum Café. 6.40—Serbo-Croate Lesson. 7.0—See *Prague*. 7.20—"The Receipt"—Comedy in One Act. 8.0—See *Prague*. 10.15—Programme Announcements and News. 10.20—See *Moravská-Ostrava*.

BRESLAU (Germany)

923 kc/s (325 m.); 1.5 kW. Relayed by *Gleiwitz*, 1,184 kc/s (253 m.).
Transmits at intervals from 6.30 a.m. 5.35 *p.m.*—Agricultural Report and Review of French Books. 5.55—Talk: Crime in old Breslau. 6.15—Dialogue for Workers, by Maria Sehr and Hugo Berger. 6.40—Talk: Modern Theories of Heredity. 7.0—Agricultural Talk from *Königs Wusterhausen*. 7.30—Weather Report, followed by Light Music on Gramophone Records. 8.0—Weather Forecast and Talk: The Unity of Life. **8.30—Symphony in B Flat Major (Haydn)** by the Silesian Philharmonic Orchestra, conducted by Hermann Behr. 9.0—Talk by Hermann Stehr, relayed from the Matthiaskunst.
9.20—Concert by the Silesian Philharmonic Orchestra, conducted by Hermann Behr. Soloist: Celeste Chop-Groonevelt (Pianoforte). Concerto for Pianoforte and Orchestra, in E Flat Major (Liszt), Sinfonietta, Op. 27, for Strings and Harp (Graener).
10.5—Time Signal, Weather Report, Sports Notes, News and Programme Announcements. 10.35—Talk in Esperanto. 10.50—Talk: Youth and Football. 11.10 (approx.)—Close Down.

BRNO (Czechoslovakia)

878 kc/s (342 m.); 35 kW.
Transmits at intervals from 11.0 a.m. 6.5 *p.m.*—Theatre and Cinema Review. 6.25—German Transmission: News and Talks. 7.0—See *Prague*. 7.5 — Talk: "Testing Building Materials." 7.20—See *Moravská-Ostrava*. 8.0—See *Prague*. 10.15—Announcements. 10.20—See *Moravská-Ostrava*.

BRUSSELS (Belgium) (No. 1)

I.N.R. 590 kc/s (509 m.); 15 kW.
12.15—1.45 *p.m.*—Weather and *Gramophone Concert*. Plaisir d'amour (Martini). Serenade (Lucchesi). Les Semailles (Goublier). Aria (Mozart). Minuet (Beethoven). March of the Marionettes (Savino and Rosi). Melody (Rubinstein). Gavotte No. 2 (Popper). Russian Songs: (*a*) The Twelve Vagabonds, (*b*) Evening Bells. Selection from "Die schöne Galathee" (Suppé). Dancing Animal Crackers (Steiner and De Coster). Waltz, My Queen (Bucalossi). Spanish March, Granada (Garcia). La Voix des Chênes (Goublier). Fantasia (Ewing). Waltz, Lavendel (Jancovec). Pasodoble, In the Month of May (Jancovec). Selection from "The Pearl Fishers" (Bizet). Intermezzo from "La Lettre de Manon" (Gillet). Gavotte from "Mignon" (Thomas-Tavart). Russian Fantasia, Hallo Moscow (Grothe). Glühwürmchens Stelldichein (Siede). Chinese Serenade (Siede). March, Barcelona (Friedemann).
5.0—Orchestral Concert, conducted by Arthur Meulemans. 5.45—Programme for Children. 6.15—Talk on Cooking. 6.30—Gramophone Concert of Sound Film Music. 7.30—Talk: International Events.
8.0—*Gramophone Concert with Accordion Interludes*, by Jean Laheye. Overture, "Les Hugenots" (Meyerbeer). Spanish Caprice (Rimsky-Korsakov). Cavatina from "The Barber of Seville" (Rossini). Selection from "Othello" (Verdi). Liebeslied (Schumann). Serenade (Schumann). Funeral March from "The Twilight of the Gods" (Wagner). 8.45—Talk with Recitations. 9.0—*Concert* (*continued*). Waltz Potpourri (Robrecht). Fantasia on Viennese Songs (Leopold). Accordion Solos: (*a*) March, Rotterdam (Schootemeyer), (*b*) Song and Tango (Stolz), (*c*) Waltz (Heymann), (*d*) Foxtrot (Siede), (*e*) March, Sailor's Love (Heymann). Three Selections. Accordion Solos: (*a*) International March (Muldermans, (*b*) Tango (Hajos), (*c*) Waltz, The Three Musketeers (Hardy), (*d*) March (Fremaux). Selection from "Les Saltimbanques" (Ganne). 10.0—Le Journal Parlé.

BRUSSELS (Belgium) (No. 2)

N.I.R. 887 kc/s (338.2 m.); 15 kW. Programme in Flemish.
12.15—1.45 *p.m.*—Weather and *Gramophone Concert*. Suite, L'Arlésienne (Bizet). L'apprenti-sorcier (Dukas). Norwegian Dances (Grieg). Spanish Caprice (Rimsky-Korsakov). Slavonic Dances (Dvorák).
5.0—Choral Concert given by Students of the Petit-Séminaire of Hoogstraten, conducted by Father Weyts. 5.45—Programme for Children by the Students of the Petit-Séminaire of Hoogstraten. 6.30—Choral Concert (continued). 7.15—Address by Canon de Smet, Superior of the Seminary. 7.30—Programme for Women. 8.0—Orchestral Concert, conducted by Arthur Meulemans. Soloist: Mme. Graindorge (Pianoforte). Prelude to the Third Act of "Lohengrin" (Wagner). In the Steppes of Central Asia (Borodin). First and Second Movement of the Pastorale Symphony (Beethoven). 8.45—Travel Impressions—an Interview with the Reverend Father Van Gestem. **9.0—Concert (continued).** L'apprenti-sorcier (Dukas). Gramophone Records: (*a*) Aria from "Dinorah" (Meyerbeer), (*b*) Indian Song from Sadko (Rimsky-Korsakov), (*c*) Hymn to the Sun from L'Coq d'or (Rimsky-Korsakov). Serenade from Milenka (Blockx). Pianoforte Solos: (*a*) Rustle of Spring (Sinding), (*b*) An dem Frühling (Grieg), (*c*) Preludium (Rachmaninoff). Fantastic (Gilson). De Vlaamsche Leeuw (Miry). 9.55—Evening Prayer. 10.0—Le Journal Parlé.

BUCHAREST (Romania)

Radio-Bucarest. 761 kc/s (394 m.); 12 kW.
No Transmission.

BUDAPEST (Hungary)

545 kc/s (550 m.); 18.5 kW.
Transmits at intervals from 9.15 a.m. Also relayed on 210 m. from 5.0—5.30 *p.m.* and 6.35 till Close Down. 5.0 *p.m.*—Agricultural Talk. 5.30—Concert of Light Music by the Budapest Zither Society. 6.10—*English Lesson*. 6.35—Gramophone Concert of Popular Music. 7.0—Programme by Herr Eugen Sipöcz.
7.30—"Tiefland"—Opera (D'Albert), relayed from the Royal Hungarian Opera House, followed by Cigány Concert from the Café Spolarich.

COPENHAGEN (Denmark)

1,067 kc/s (281 m.); 0.75 kW. Relayed by *Kalundborg*, 260 kc/s (1,153 m.).
Transmits at intervals from 7.30 a.m. (Gymnastics).
11.0 *a.m.*—Weather Forecast. 11.10—Fishing Notes. 11.15—Reading in Swedish for Schools. 12 *noon*—Time and Chimes from the Town Hall.
12.2 *p.m.*—String Ensemble Concert, conducted by Leonard Gyldmark, relayed from the Palace Hotel. 2.0—3.30—Interval. 3.30—Reading. 3.50—Orchestral Concert, conducted by A. Bendix, relayed from the Wivex Restaurant. 5.0—Programme for Boys. 5.40—Exchange and Fish Market Prices. 5.50—Talk: Prince Albert and Queen Victoria. 6.20—*English Lesson for Beginners*. 6.50—Weather Forecast. 7.0—News Bulletin. 7.15—Time Signal. 7.16—Talk: Inventions in connection with Motor-cars. 7.45—Danish Lesson.
8.10—Twenty - Eighth Concert from the State Broadcasting Building. The Station Symphony Orchestra, conducted by Hans Weisbach. Soloist: Maria Müller (Vocalist). Overture, "Euryanthe" (Weber). Songs: (*a*) Aria from "Joshua" (Händel), (*b*) Two Songs from "Egmont" (Beethoven), (*c*) Aria from "Der Freischütz" (Weber). Symphony No. 7 in A Major (Beethoven). Ten Minutes Interval. Overture, "Tannhäuser" (Wagner). Songs (Wagner): (*a*) Elsa's Dream from "Lohengrin," (*b*) Elizabeth's Aria from "Tannhäuser." Prelude to "The Mastersingers" (Wagner).
10.15—News Bulletin. 10.30—Dance Music from the Ritz Restaurant. In the interval at 12 *midnight*.—Time and Chimes from the Town Hall. 12.30 *a.m.* (*Friday*)—Close Down.

CRACOW (Poland)

959 kc/s (312.8 m.); 1.5 kW.
Transmits at intervals from 11.45 a.m. 6.50 *p.m.*—Miscellaneous Items and Announcements. 7.0—Talk: "Old Cracow." 7.15—Agricultural Report. 7.25—Programme Announcements. 7.30—Light Music on Gramophone Records. 7.45—Announcements and Review. 8.15—Concert. 9.15—A Radio Play (M. J. Karbovsky). 10.0—See *Warsaw*. 12 *midnight* (approx.)—Close Down.

DUBLIN (Ireland)

(2RN). 725 kc/s (413 m.); 1.2 kW. Relayed by *Cork*, 1,337 kc/s (224.4 m.).

THURSDAY
continued

1.30—2.0 *p.m.*—Time Signal, Weather Forecast, Stock Report and Light Music on Gramophone Records. 6.0—Popular Music on Gramophone Records. 6.15—Programme for Children. 7.0—Light Music on Gramophone Records. 7.10—News and Dublin Cattle Market Report. 7.30—Time Signal. 7.31—French Lesson. 7.45—Octet Recital. Soloist: Mr. Williams (Pianoforte). 8.45—Violin Solos by Elizabeth Collins. 9.0—Talk: "Early Irish Church Buildings." 9.30—Soprano Solos by Lena Munro. 9.45—Sketch by H. Fraser and P. Luby. 10.15—Station Sextet. 10.30—Time Signal, News, Weather Report and Close Down.

FÉCAMP (France)

Radio Normandie. 1,364 kc/s (219.9 m.); 10 kW.
Transmits at intervals from 12 noon. 7.30 *p.m.*—Popular Gramophone Music. 7.45—Announcements. 8.0—News Bulletin. 8.30 (from *Rouen*)—Concert. 11.0 *p.m.*—1.0 *a.m.*—(*Friday*)—Variety Concert. 1.0—(approx.)—Close Down.

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.5 kW. Relayed by *Cassel*, 1,220 kc/s (246 m.).
Transmits at intervals from 6.0 a.m. 1.0 *p.m.*—Gramophone Concert of Light Music. 2.0—News Bulletin. 2.10 — Sponsored Gramophone Records. 3.0—Weather Report. 3.5—Time and Economic Notes. 3.30—Programme for Children. 4.55—Economic Notes.
5.0—*Orchestral Concert*. Soloist: Leo Magido (Tenor). Overture, "Othello" (Rossini). Selection from "La Favorita" (Donizetti). Intermezzo and March from "Marion Delorme" (Ponchielli). Songs (Puccini) from (*a*) "Le Villi," (*b*) "Manon Lescaut." The Journey to Le Havre (Puccini). Prelude to Act Three of "Edgar" (Puccini). Songs (Verdi) from (*a*) "The Force of Destiny," (*b*) "I Due Foscari."
6.15—Economic Notes. 6.25—Film Talk. 6.50—Dialogue: Is the Handicraft Worker too Expensive? 7.15—Talk by Niddy Impekoven on her Travels through Java and Ceylon. 7.25—Time and News. 7.30—10.20—See *Stuttgart*. 10.20—Time and News. 10.45—Concert from *Langenberg*. 12 *midnight* (approx.)—Close Down.

HAMBURG (Germany)

Norag (ha, in Morse). 806 kc/s (372 m.); 1.5 kW. Relayed by *Bremen*, 1,112 kc/s (270 m.); *Flensburg*, 1,373 kc/s (218 m.); *Hanover*, 530 kc/s (566 m.); and *Kiel*, 1,292 kc/s (232.2 m.).
Transmits at intervals from 5.45 a.m. 5.55 *p.m.*—Variety Programme. 6.30 (from *Hanover*)—Talk: Collecting Orchids in the Forests of Colombia and Venezuela. 6.55—Frankfurt Exchange and Hamburg Market Prices. 7.0—Topical Talk. 7.15—Weather Report.
7.20 (from Hanover)—A Musical Variety Programme by the Hanover Norag Orchestra, conducted by Otto Ebel von Sosen. Overture, "Cleopatra" (Enna). Suite, Die Mamaloi (Leuschner). Indian War Dance (Lumbye). Chinese Dance (Helmburgh-Holmes). Selection, Humoresque, the Goose-step. Selections (Leuschner): (*a*) Chinesisches Märchen, (*b*) Tigerjagd. Immer nur lächeln (Löhr). Selection (Aubert).
8.30—"*Heimat*"—a North German Radio Play (Ludwig Hinrichsen).
10.0—Time and News.
10.20—Dance Music by the Little Norag Orchestra, conducted by Adolf Secker. Minuet (Mozart). Quadrille from "Die Fledermaus" (Strauss). Gipsy Mazurka (Ganne). Waltz, Hoffnungsstrahlen (Lanner). Gallop, In Saus und Braus (Millöcker). Rosenpolka (Vollstedt). Waltz, Schlösser die im Monde liegen (Lincke). March, Amors Siegeszug (Blon). Waltz, An dich (Waldteufel). Gavotte (Michaelov). Waltz, Barcarolle (Waldteufel). Gallop, Schlittenfahrt (Klose). Lieder-Quadrille (Strauss). Waltz, Hofballtänze (Lanner).

HEILSBERG (Germany)

1,085 kc/s (276.5 m.); 60 kW. Relayed by *Danzig*, 662 kc/s (453.2 m.).
Transmits at intervals from 6.30 a.m. 11.30 *a.m.*—Concert from *Hamburg*.
1.5—2.30 *p.m.*—*Concert by the Little Orag Orchestra*, conducted by Eugen Wilcken. Overture, "Das Spitzentuch der Königin" (Johann Strauss). Waltz, Weaner Madln (Ziehrer). Selection from "La Traviata" (Verdi). Fantasia on the Works of Kálmán (Feigl). Waltz, Estudiantina (Waldteufel). Overture, "The Thieving Magpie" (Rossini).
3.25—Talk for Young People. 3.50—"*Gockel, Hinkel und Gackeleia*"—Radio Play for Young People, after Clemens Brentano (Maria Clara Keller).
4.30—*Concert by the Little Orag Orchestra*, conducted by Eugen Wilcken. Potpourri, The Three Strausses (Lindemann). Morning, Noon and Night (Suppé). Waltz, Die letzten Tropfen (Kratzl). Entr'acte Gavotte (Gillet). Der Lenz ist da (Hildach). Selection from "Madame Butterfly" (Puccini). Hungarian Rhapsody (Reindl. Selection from "The Czardas Princess" (Kálmán).
5.45—Review of Books. 6.15—Market Prices. 6.30—Agricultural Talk.
7.0—*English Conversation*. 7.25—Weather Forecast. **7.30—Pictures of East Prussian Towns—Heilsberg.**
8.30—Concert of Chamber Music. Passacaglia (Händel-Halvorsen). Duet for Violin and Viola in B Flat Major (Mozart).
9.0—Announcements.
9.10—Concert by the Wireless Choir, conducted by Hugo Hartung. Old German Madrigals: (*a*) Mein Freud allein (Isaac), (*b*) Gott behüte dich (Lechner), (*c*) Die Macht der Phyllis (Schein), (*d*) Hans und Grete (Eccard). Modern Chorals: (*a*) O Tod, wie bitter bist du (Reger), (*b*) Schlafend trägt, weisse Schafe (Fischer), (*c*) Werkleute sind wir (Marx), (*d*) Auf einem Kirchturm (Otto Besch), (*e*) Friede auf Erden (Schönberg).
10.10—News Bulletin.

HILVERSUM (Holland)

1,004 kc/s (298.8 m.); 8.5 kW.
Programme of the Algemeene Vereeniging Radio Omroep (A.V.R.O.).
8.40 *a.m.*—Time Signal. 8.41—Variety Music on Gramophone Records. 10.41—The Daily Service.
11.10—*Concert*. Soloists: Henny Hulshoff (Pianoforte), Corry Bijster (Songs). Egbert Veen at the Pianoforte. Variations for Pianoforte in C Minor (Beethoven). Songs: (*a*) Een liedje van de linden (Wagenaar), (*b*) Maanlicht (Zweers), (*c*) Het jonge paar (Mortelmans), (*d*) Elfenlied (Wolf), (*e*) Citronenfalter in April (Wolf). 11.40—Dressmaking Lesson. 12.10 *p.m.*—*Concert* (*continued*). Pianoforte Solos: (*a*) Songs without Words, Nos. 14 and 34 (Mendelssohn), (*b*) Impromptu in A Flat Major (Schubert). Songs: (*a*) Die Liebe hat gelogen (Schubert), (*b*) Im Haine (Schubert), (*c*) Suleika (Schubert), (*d*) Das Veilchen (Mozart), (*e*) An Chloe (Mozart), (*f*) Un moto di gioja (Mozart), (*g*) Ridente la calma (Mozart). 12.40—Time Signal.
12.41—*Concert by the Wireless Orchestra*, conducted by Nico Treep. Overture, "The Italian Girl in Algiers" (Rossini). Indian Ballet from "Lakmé" (Delibes). Selection from "The Mikado" (Sullivan). Selection (Myddleton). Variety Music on Gramophone Records. Donauweibchen (Johann Strauss). Selection from "The Little Girl" (Kálmán). A Visit to the Woodpecker's (Percy). Popular Gramophone Music. March (Roland). April (Tosti). Donna Vatra (Köpping). My Old Kentucky Home (Busch). Salut d'amour (Elgar). March, Schneidige Truppe (Lehnhardt).
2.40—3.10—Talk. 3.25—Variety Music on Gramophone Records.
3.40—Dressmaking Lesson. 4.25—Gramophone Records (contd.).
4.40—Programme for Hospitals. 5.40—Concert by a Children's Choir, conducted by Jacob Hamel.
6.10—*Concert by the Little Wireless Orchestra*, conducted by Nico Treep. March, Old Comrades (Teike). Selection from "The Geisha" (Jones). Waltz, Etincelles (Waldteufel). Egyptian March (Johann Strauss). Suite, Straussfedern (Morena). Diplomat-Polka (Johann Strauss). Gallop, Nineta (Johann Strauss). Ballet Music from "La Source" (Delibes). 7.10—Talk on Sport.
7.40—*Concert* (*continued*). March, The League of Nations (Lincke). Waltz from "Lysistrata" (Lincke). Turkish Fairy Tale (Lincke).
7.55—*English Lesson*. 8.25—"The Seasons"—Oratorio (Haydn), by the Choir and Orchestra of the Concertgebouw, conducted by Dr. Willem Mengelberg. Soloists: Mia Peltenburg (Soprano), Hermann Schey (Baritone) and Julius Patzak (Tenor).
In the interval, News and Weather.
11.40—Variety Music on Gramophone Records. 12.40 *a.m.* (*Friday*)—Close Down.

HUIZEN (Holland)

160 kc/s (1,875 m.); 8.5 kW.
8.40—9.55 *a.m.*—Programme of the Catholic Radio Society (K.R.O.). Gramophone Records of Variety Music.
10.40—11.40—Programme of the Christian Radio Society (N.C.R.V.). 10.40—Gramophone Records of Popular Music. 10.55—Programme for Invalids. 11.25—Gramophone Records of Popular Music. 11.40—2.40—*p.m.*—K. R.O. Programme. 11.40—Gramophone Records of Light Music. 12.10—Religious Address. 12.40—Police Notes.
12.55—*Orchestral Concert*, conducted by Johan Gerritsen. March, Unter dem Doppel-Adler (Wagner). Overture, "Les Dragons de Villars" (Maillart). Waltz, The Belles of Valencia (Morena). Albumblatt (Wagner). Suite, Les Fables de La Fontaine (Mouton). Overture, "Nakiris Hochzeit" (Lincke). Prelude (Järnefeldt). Czardas (Monti). Fantasia on Popular Songs, Heimatsklänge (Krome). Nibelungenmarsch (Sonntag).
2.40 till Close Down. N.C.R.V. Programme. 2.40—Lesson in Handicrafts. 3.40—Programme for Women. 4.10—Interval. 4.40—Programme for Invalids. 5.40—Handwork for Young People. 6.25—Frisian Songs by Lucas Hannema (Baritone). 7.25—Dressmaking Lesson. 7.40—Talk. 8.10—Police Notes. 8.25—Religious Information.
8.40—*Concert by a Mouth-Organ Orchestra*. March, Wien bleibt Wien (Schrammel). Prière (Bortniansky). March, Cours avant (Corn) Galoppade (Colint). Wiegenlied (Brahms). March (Stanz). March of the Concordia Club (Wouw). Potpourri of Popular Melodies (Wouw). National Anthem. 9.40—Talk.
10.10—*Tenor Song Recital by Evert Miedema*. Aria from "Elijah" (Mendelssohn). Aria from "The Messiah" (Händel). Busslied (Beethoven). Song Cycle, Gesänge an Gott (Haas). Christus heeft overwonnen (Bach). Advent (J. W. Franck). Pinksterlied (J. W. Franck). 's Heeren Intocht (Händel). In the interval at 10.25—News.
11.10—Gramophone Records of Popular Music. 12.10 *a.m.* (*Friday*)—Close Down.

KALUNDBORG (Denmark)

Kalundborg Radio. 260 kc/s (1,153 m.); 7.5 kW.
See *Copenhagen*.

KATOWICE (Poland)

734 kc/s (408 m.); 16 kW.
Transmits at intervals from 11.58 a.m. 5.35 *p.m.*—Concert by the Conservatoire of Music Orchestra. 7.30—Japanese Programme. 8.15—Concert of Light Music. 10.0—Concert by the Winners of the Chopin Competition.

LAHTI (Finland)

167 kc/s (1,796 m.); 54 kW. Relayed by *Helsinki*, 815 kc/s (368.1 m.).
Transmits at intervals from 7.10 a.m. 6.15 *p.m.*—Talk (to be announced). 6.40—Talk (to be announced). 7.5—Selection from "Il Trovatore" (Verdi), by the Station Orchestra. 7.25—Recitation. 7.45—Recital by Ludwig Juht (Double Bass). 8.10—Concert by the Station Orchestra. 8.45—News and Close Down.

LANGENBERG (Germany)

Westdeutscher Rundfunk. 635 kc/s (473 m.); 60 kW.
Transmits at intervals from 6.45 a.m. (Exercises, Weather, Time and Gramophone Concert).
11.20 *a.m.*—Gramophone Concert of Light Music. 12 *noon*—Concert from *Munich*. 12.50 *p.m.*—Weather, Announcements and Time.
1.0—*Orchestral Concert*, conducted by Eysoldt. Overture, "The Bartered Bride" (Smetana). Dance Suite from the Nutcracker Ballet (Tchaikovsky). Variations on the "Carnival in Venice" (Ritzau). Ein Immortellenkranz auf das Grab Lortzings (Rosenkranz). Liebeswalzer (Reger). Ballet Music from "La Juive" (Halévy). Blumengeflüster (v. Blon). Village Dance (Chabrier). Cigány Music (Pataky).
2.30—Sponsored Gramophone Concert. 3.30—Economic Notes and Time. 3.50—Programme for Children. 4.10—Notes on the Broadcasts for Schools. 4.20—Educational Talk.
5.0—*Choral Concert*. Soloist: Egbert Grape (Pianoforte). Folk Songs

(arr. Burkhart): (*a*) Ade zur guten Nacht, (*b*) Gestern bei Mondenschein, (*c*) Als ich auf Bergen stand, (*d*) Wach' auf mein's Herzens Schöne. Pianoforte Solos: (*a*) Glocken (Lemacher), (*b*) Wilhelm-Raabe-Musik (Graener), (*c*) Kleine Dorfmusik (Unger), (*d*) Im Traum and Tarantella from "Notturnos" (Unger). Songs (Ramrath): (*a*) Unterwegs, (*b*) Dein Herz und mein Herz, (*c*) Mein eigen, (*d*) Du bist einmal mein Schatz gewest. Pianoforte Solos: (*a*) Stimmungen (von der Dals), (*b*) May Night (Palmgren), (*c*) Tarantella (Palmgren). Terzetto for Two Sopranos and Contralto with Pianoforte accompaniment (Koch): (*a*) Der Weiher, (*b*) Ein geistlich Abendlied, (*c*) Gute Nacht. Fabrikgang (Richter). Nachtmusikanten (Lothar).

6.15—Talk on Westphalia. 6.40—Italian Lesson. 7.0—Weather; Time, Economic Notes and Sports Results. 7.15—Talk for Women. 7.35—Talk: The Iron and Steel Industry in the Rhineland and the Ruhr District. 7.55—News Bulletin. 8.0—"The World on Gramophone Records—Swedish Songs.

8.30—**The Third Act of "Siegfried"—Opera (Wagner).** 10.0—News Bulletin. 10.45 (approx.)—Light Music and Dance Music. 12 *midnight* (approx.)—Close Down.

LEIPZIG (Germany)

1,157 kc/s (259 m.); 2 kW. Relayed by *Dresden*, 941 kc/s (319 m.).
Transmits at intervals from 6.30 a.m.
6.0 *p.m.*—Medical Talk. 6.15—Talk on Taxation. 6.30—Spanish Lesson. 6.50—Talk (to be announced) 7.0—Talk: The Factory Council.
7.30—*The Choral Song of the Post Romantic Period—Recital by the Beucha Workers' Choir.* Folk Song, Untreue (Friedrich Silcher). Aus der Jugendzeit (Radecke, arr. Mohr). Uebers Jahr mein Schatz (Stiller). O, Diarndle, tief drunt' im Tal (Herbeck). Folk Song, Wenn ich den Wandrer frage (arr. Bühren). Two Selections (Uthmann): (*a*) Am Mühlenwehr, (*b*) Walther von der Vogelweide. Dorfball (Bröll).
8.0—**"Knight Roland" (Orlando Paladino)—Comic Opera in Three Acts (Haydn)** arranged by Dr. Ernst Latzko. 10.5—News, and Silent Night.

LJUBLJANA (Yugoslavia)

522 kc/s (574.7 m.); 2.5 kW.
Transmits at intervals from 12.15 p.m.
5.30 *p.m.*—Quintet Concert. 6.30—Talk: "Ethics and Socialism." 7.0—Italian Lesson. 7.30—Serbo-Croatian Language Lesson. 8.0—Educational Talk. 8.30—Pianoforte Recital by Mlle. Pozenel.
9.30—Song Recital by Mme. Gjungjenac. 10.0—Slav Folk Song Recital by a Vocal Quartet. 10.30—Time Signal and News Bulletin.

LWÓW (Poland)

788 kc/s (381 m.); 16 kW.
Transmits at intervals from 11.45 a.m.
6.30 *p.m.*—Miscellaneous Items. 6.55—See *Warsaw*. 12 *midnight* (approx.)—Close Down.

LYONS (France)

La Doua. (PTT). 644 kc/s (465.8 m.); 1.5 kW.
Transmits at intervals from 8.0 a.m.
7.0 *p.m.*—Popular Music on Gramophone Records. 7.30—Radio Gazette for Lyons and the South-East. 8.30—Programme of French Opéra-Comique Music.

MADRID (Spain)

Union Radio. (EAJ7). 707 kc/s (424.3 m.); 2 kW.
Transmits at intervals from 9.0 a.m.
8.0 *p.m.*—Chimes, Exchange, Market Prices and Request Gramophone Concert. 9.15—News and Political Review. 9.30—10.0—Interval. 10.0—French Lesson on Gramophone Records.
10.30—Chimes, Time, Political Review and *Song Recital*. Flor y luz (Puche and Dotras). Manos bellas (Ibañez and Romero). Selection from "Rose Marie" (Friml). Tango, Júrame (Grever). Mi campanilla (Zaragoza and Estera). Flor de poeta (Parera, Martinillo and de Lorenzo). Gitana (J. del Moral).
11.15—Band Concert conducted by Marquina from the Hotel Nacional.
12.45 *a.m.* (*Friday*)—News Bulletin.
1.0—Chimes and Close Down.

MILAN (Italy)

Ente Italiano Audizioni Radiofoniche. 905 kc/s (331.5 m.); 7 kW.
See *Turin*.

THURSDAY
continued

MORAVSKÁ-OSTRAVA (Czechoslovakia)

1,137 kc/s (263.8 m.); 11 kW.
Transmits at intervals from 11.0 a.m.
7.0 *p.m.*—See *Prague*. 7.20—Concert by a Brass Band. 8.0—See *Prague*. 10.15—Announcements and Theatre Guide.

MOSCOW (Russia)

Trades Union. 230.1 kc/s (1,304 m.); 100 kW.
Transmits at intervals from 5.0 a.m.
4.0 *p.m.*—Proletariat Radio Journal. 5.0—Agricultural Report. 6.0—Talk, to be announced. 7.0—Topical Talk. 8.0—Weekly Review and Answers to Correspondents in German and *English*. 9.55—Chimes and Close Down.

MUNICH (Germany)

563 kc/s (533 m.); 1.5 kW. Relayed by *Augsburg* and *Kaiserslautern*, 536 kc/s (560 m.); and *Nürnberg*, 1,256 kc/s (239 m.).
Transmits at intervals from 6.45 a.m.
6.15 *p.m.*—Weather and Agricultural Report. 6.25—Talk: Music as an Expression of the Age. 6.45—Agricultural Talk. 7.5—Talk: The German State Railways, the greatest Industrial Enterprise in the World.
7.25—Concert of Light Music.
8.10 (from *Nürnberg*)—Franconian Soldier Songs and Army Marches from the Year 1800.
9.5—**"From the Gavotte to Jazz"**—Violin and Pianoforte Recital by Hedwig Fassbaender-Rohr and Dr. Hans Rohr. Introduzione (Sammartini). Gavotte (Bach). Minuet (Händel). Gavotte (Gossec). Minuet (Schubert). Spanish Dance (Sarasate). Mazurka (Zarzycky). North Hungarian Peasant Songs and Dances (Rusza). Caprice viennois (Kreisler). Jazzette (Gruenberg).
9.55—Selections by a Speaking Choir. Extracts from the Works of Walt Whitman and Friedrich Nietzsche. Gustav Schoedel at the Organ.
10.25—Time and News.

OSLO (Norway)

Kringkastingselskapet. 277 kc/s (1,083 m.); 60 kW. Relayed by *Fredriksstad*, 816 kc/s (367.6 m.); *Hamar*, 536 kc/s (560 m.); *Notodden*, 671 kc/s (447.1 m.); *Porsgrund*, 662 kc/s (453.2 m.); and *Rjukan*, 671 kc/s (447.1 m.).
Transmits at intervals from 10.0 a.m.
6.0 *p.m.*—German Lesson. 6.30—Religious Address. 7.0—Announcements. 7.15—Weather and News. 7.30—Agricultural Talk. 8.0—Time Signal.
8.2—**Concert of Sacred Music from St. Saviour's Church.** 9.40—Weather and News. 10.0—Topical Talk.
10.15—**Concert by the Station Orchestra, conducted by Hugo Kramm.** Symphony No. 1 in D major (Svendsen). Selections (Alnaes).

PALERMO (Italy)

Ente Italiano Audizioni Radiofoniche. 554 kc/s (542 m.); 3 kW.
Transmits at intervals from 12.45 p.m.
5.30 *p.m.*—Light Music on Gramophone Records. 6.0—Programme for Children. 6.30—8.0—Interval. 8.0—Agricultural Notes and Giornale Radio. 8.20—Popular Music on Gramophone Records. 8.30—Time Signal and Weather.
8.45—*Concert*. Conducted by F. Miletello. March, New Orleans (Alger). Intermezzo (Mule). Waltz, Pampalona (Gauwin). Selection, "Ballo Excelsior" (Marenco). Italian Songs. Selection (Salabert). Oriental Dance (Frontini). Czardas No. 2 (Billi). In the intervals: Cinema Review and Talk. 10.55—News and Close Down.

PARIS (France)

Eiffel Tower (FLE). 207.5 kc/s (1,445.7 m.); 13 kW.
Time Signals on (2,650 m.) at 10.26 a.m. and 11.26 p.m. (preliminary and 6-dot signals).
Transmits at intervals from 1.0 p.m.
6.45 *p.m.*—Talk on the Theatre. 7.0—Le Journal Parlé. 8.20—Weather Report.
8.30—*Gramophone Concert*. Selections from "L'Arlésienne" (Bizet). Selections from "The Pearl Fishers" (Bizet). Selections from "Orpheus in the Underworld" (Offenbach). Sous la feuillée (Thomé). Tesoro mio (Becucci). Selection (Lehár). Selection from "Ciboulette" (Hahn). Old Songs: (*a*) En r'venant de Suresnes (Spencer), (*b*) En r'venant de la revue (Desormo). Vienna City of my Dreams (Sieczynsky). Schatzwalzer (Johann Strauss). Mi Beturrico Jota (Neira). March, Honneur aux Tirailleurs (Courtade).

PARIS (France)

Poste Parisien. 914 kc/s (328.2 m.); 1.2 kW.
Transmits at intervals from 12 noon.
6.45 *p.m.*—News and Announcements. 7.0—Gramophone Records, Talk and News. 7.30—Concert of Popular Music on Gramophone Records. 8.30—Gramophone Records, Talk and News.
8.45—*Vocal and Orchestral Concert*. Overture, "Ruy Blas" (Mendelssohn). Pastorale for Two Oboes and Orchestra (Luigini). Intermezzo (Boëllmann). Symphonic Poem, Le Chausseur maudit (Franck). The Surprise Symphony (Haydn). Hungarian Dance, No. 3 (Brahms). Triumphal March (Beethoven).
10.45—News Bulletin. 10.50 (approx.)—Close Down.

PARIS (France)

Radio-Paris (CFR). 174 kc/s (1,725 m.); 75 kW.
6.45 *a.m.*—Physical Culture Course. 7.30—Weather Report and Physical Culture (contd.). 7.45—Light Music on Gramophone Records. 8.0—News, Weather Report and Press Review.
12 *noon*—Protestant Address.
12.30 *p.m.*—*Gramophone Concert for Young People*. Slav Song. Entre le Bœuf et l'Ane gris (Traditional XIIIth Century). Marie, je crains pour notre voyage (Song from Nivernais). Polichinelle (Rachmaninov). Le Bestiaire (Poulenc). Golliwog's Cake-Walk (Debussy). Les Ecrevisses. L'Héritage imprévu (Chepfer). La cage de Cristal. Le petit âne blanc. Swing Duet from "Véronique" (Messager). The Songs of Bob and Bobette (Zimmermann). Ronde villageoise (Chabrier). Foxtrot, Jokes. Martial Moments (Winter). In the intervals at 1.0—Exchange Quotations, News and Weather,

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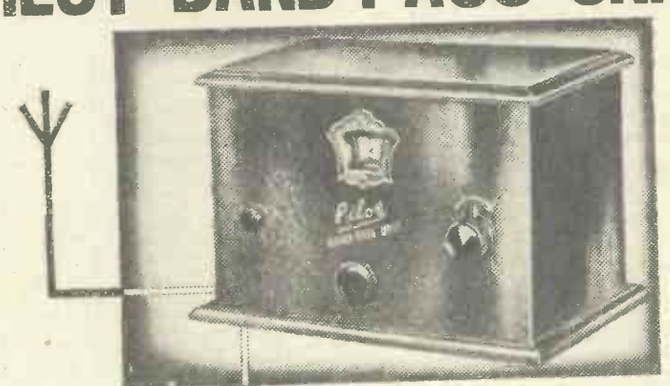

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and at 1.30 and 2.0—Exchange Quotations.
3.45—Exchange and Market Prices. 6.30—Market Prices, Weather Report, Agricultural Notes and Racing Results. 7.0—Talk on Ireland (IV): Civilisation. 7.30—German Lesson. 7.45—Review of the German Press, Commercial Prices and News.
8.0—*Light Music on Gramophone Records.* Hawaiian Guitar (Scotto). Dans les Magasins (Borel-Clerc). March (Quern). 8.15—News, Sports Notes and Weather. 8.25—Review by Dominique Bonnaud.
8.30—"Nina Rosa"—Operetta in Two Acts (Romberg), relayed from the Théâtre du Châtelet. In the interval, Press Review and News.

POZNAŃ (Poland)

896 kc/s (335 m.); 1.9 kW.
Transmits at intervals from 11.45 a.m. 6.50 *p.m.*—Miscellaneous Items and Announcements. 7.15—Agricultural Report. 7.30—*English Lesson on Linguaphone Records.* 7.45—8.15—See *Warsaw.* 8.15—Soloist Concert. Wlodzimiera Jarochowska (Mezzo-Soprano), Prof. Gertruda Konatkowska (Pianoforte) and Prof. Józef Madeja (Clarinette). In the intervals, Theatre Guide. 9.15—See *Cracow.* 10.0—See *Warsaw.* 12 *midnight*—Time Signal, Sports Notes and Police Report. 12.15 *a.m.* (*Friday*)—Close Down.

PRAGUE (Czechoslovakia)

614 kc/s (488.6 m.); 120 kW.
Transmits at intervals from 11.0 a.m. 4.10 *p.m.*—Orchestral Concert from *Bratislava.* 5.10—Russian Lesson. 5.25—Talk: Modern Cavalry. 5.35—Variety Items from *Brno.* 6.5—Agricultural Talk. 6.25—German Transmission. 6.30—Talk on Economics. 7.0—News Bulletin. 7.5—Technical Talk. 7.20—See *Moravská-Ostrava.*
8.0—Concert by the Philharmonic Orchestra, conducted by Jeremias, relayed from the Smetana Hall. Selection (Smetana). The Nursery (Moussorgsky). Symphonic Poem, Toman and the Wood Nymph (Novák). Symphony in D Minor (Franck). In the interval at 9.0—Time Signal.
10.0—Time and News. 10.15—Miscellaneous Announcements. 10.20—See *Moravská-Ostrava.*

RADIO-SUISSE ROMANDE (SOTTENS) (Switzerland)

743 kc/s (403 m.); 25 kW.; *Lausanne*, 442 kc/s (680 m.); and *Geneva*, 395 kc/s (760 m.).
Transmits at intervals from 12.30 p.m. 4.31 *p.m.*—Orchestral Concert, conducted by Robert Echenard. 5.45 (from *Lausanne*)—Concert of Light Music. 6.30 (from *Lausanne*)—Film Talk. 6.45 (from *Geneva*)—Programme for Children. 7.0—Weather Forecast. 7.1 (from *Geneva*)—Light Music on Gramophone Records. 7.10 (from *Geneva*)—Esperanto Lesson. 7.30 (from *Geneva*)—*English Lesson.* 7.55—Announcements. 8.0 (from *Geneva*)—Talk: The Work of the Disarmament Conference.
8.10—See Vienna. 10.20—Weather and News. 10.30 (approx.)—Close Down.

RIGA (Latvia)

572 kc/s (525 m.); 15 kW.
Transmits at intervals from 6.0 a.m. 4.30 *p.m.*—Talk on French Literature. 5.0—Pianoforte Recital of Russian Music. 5.30—Talk by Prof. A. Spekke. 6.0—Wireless Talk. 6.35—*English Lesson.* 7.0—Weather. 7.5—"*Victoria and her Hussar*"—Operetta in Three Acts (Abraham). In the interval, News and Weather Forecast. After the Programme, Light Music. 10.30 (approx.)—Close Down.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche (1RO). 680 kc/s (441 m.); 50 kW. Relayed by *Naples*, 941 kc/s (319 m.) and 2RO, 11,810 kc/s (25.4 m.).
8.15—8.30 *a.m.*—Giornale Radio and Announcements. 12.30 *p.m.*—Gramophone Concert of Variety Music. In the intervals at 12.35—Weather, at 1.15—Giornale Radio and Exchange and at 1.30—Time and News. 2.0—5.0—No Transmission. 5.0—Exchange Quotations. 5.5—Programme for Children. 5.25—Giornale Radio and Announcements.
5.30—*Song Recital* by Luciana Casalbore (Mezzo-Soprano) and Vera Nadia Poggioli (Soprano). Mezzo-Soprano Solos: (*a*) Aria from "La Vestale" (Spontini) (*b*) I due tarli (Zandonai). Soprano Solos: (*a*) Aria from "The Force of Destiny" (Verdi), (*b*) Aria from "Iris" (Mascagni).
5.45—*Concert.* Selection from "Fiorina" (Pedrotti). Pavane from "Le Maschere" (Mascagni). Nostalgia de Granada (Corti). Violin Solo: Rondino (Beethoven-Kreisler). Intermezzo, Tramonto (Pennati-Malvezzi). American Suite (Thurban).
6.15—Giornale dell Enit. 6.25—Educational Programme. 6.55 (from *Naples*)—Shipping News. 7.0—Agricultural Report, Weather Announcements, Giornale Radio and Press Review. 8.0—Time, News and Gramophone Concert of Light Music. 8.30—Talk for Housewives, Sports Notes and Announcements.
8.45—Concert of Italian Music, conducted by Alceo Toni. Toccata and Pastorale (Pasquini). Sinfonietta (Salieri). Selection from "Linda di Chamounix" (Donizetti). Film Notes. Two Lyrics for Voice and Orchestra (Toni). Personaggi di fiaba from the Suite "Immagini infantili" (Toni). Suite in the form of Variations (Toni). Violin Solos by Maria Balbis: (*a*) Zampognara (Principe), (*b*) Notturno adriatico (Castelnuovo Tedesco), (*c*) Caprice No. 20 (Paganini). Il sole di Braie (Sonzogno). Selection from "Sicilian Vespers" (Verdi). 10.55—News Bulletin.

SCHENECTADY (U.S.A.)

General Electric Company (WGY). 790 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,530 kc/s (31.48 m.); and by W2XAD on 15,340 kc/s (19.56 m.).
Transmits at intervals from 11.45 a.m. 8.30 *p.m.*—Woman's Radio Review from *New York.* 9.0—Musical Comedy Hits from *New York.* 9.30—Musical Ad Men. 9.55—News Items. 10.0—Stock Reports and Police Notices. 10.15—11.0—*New York* Relay. 10.15—Skippy. 10.30—Swannee Serenaders. 10.45—Musical Programme. 11.0—Joe and Eddie. 11.15—Annette McCullough (Crooner). 11.29—Time Signal. 11.30—Musical Comedy Hits. 12 *midnight* (WGY only)—New Kenmore Orchestra. 12 *midnight* (W2XAF only)—Stock Reports and News Items.
12.15 *a.m.* (*Friday*)—Musical Programme. 12.30—4.0—*New York* Relay. 12.30—Prince Albert Quarter Hour. 12.45—Trials of the Goldbergs. 1.0—Fleischman Hour. 2.0—Big Six of the Air. 2.30—Rudyard Kipling's Stories Dramatised.
3.0—Lucky Strike Dance Hour. 4.0—Jerry Brannon (Baritone). 4.15—Organ Solos by Floyd Walter from the Ritz Theatre, Albany. 4.45—Cotton Club Orchestra from New York. 5.0—DeWitt Clinton Orchestra. 5.30—New Kenmore Orchestra. 6.0 (approx.)—Close Down.

SCHWEIZERISCHER LANDESSENDER (BERO-MÜNSTER) (Switzerland)

653 kc/s (459 m.); 60 kW.; *Basle*, 1,229 kc/s (244.1 m.); and *Berne*, 1,220 kc/s (246 m.).
12.28 *p.m.*—Time Signal from *Neuchâtel* Observatory. 12.30—Weather Report and News. 12.40—Concert by the Station Orchestra. 1.35—Weather Report and Exchange Quotations. 1.45—3.30—Interval.
3.30—Concert by the Station Orchestra. 4.0—Light Music on Gramophone Records. 5.0 (from *Berne*)—Book Review. 5.30—Weather Report. 5.35—6.30—Interval. 6.30—Concert by the Comedian Harmonists on Gramophone Records. 7.0 (from *Zürich*)—Talk: Old Superstitions in New Garb. 7.28—Time Signal and Weather Report. 7.30 (from *Zürich*)—Talk: Women Artists. 8.0—Introductory Talk to the following transmission.
8.10—See Vienna. 10.20 (approx.)—News and Weather Forecast.

STOCKHOLM (Sweden)

Radiotjänst (SASA). 689 kc/s (436 m.); 55 kW. Relayed by *Boden*, 244 kc/s (1,229.5 m.); *Göteborg*, 932 kc/s (322 m.); *Hörby*, 1,166 kc/s (257 m.); *Motala*, 222.5 kc/s (1,348 m.); *Östersund*, 389 kc/s (770 m.) and *Sundsvall*, 554 kc/s (542 m.).
Transmits at intervals from 7.20 a.m. (Gymnastics and Service).
3.0 *p.m.*—Divine Service. 5.30—The Children's Letter-Box. 5.45—Variety Music on Gramophone Records. 6.45—Elementary German Lesson from *Göteborg.* 7.15—Weather and News. 7.30—Talk: Swedish Lakes.
8.0—Orchestral Concert of Swedish Music. Concert Overture (Atterberg). Marionette Suite No. 1 (Rosenberg). Swedish Rhapsody, Per Spelman han spelte (Lindberg). Two Pieces for String Orchestra (Wiklund). Two Scandinavian Poems (Westberg). Lyric Vignettes from the Music to "Brand" (Rangström).
9.15—Talk. 9.45—Weather and News.
10.0—*Concert.* Soloist: Pelle Nordström (Songs). Overture, "Elverhöj" (Kuhlau). Songs to the Lute. Waltz, Frühlingskinder (Waldteufel). Berceuse (Sköld). Songs (Bellman). Tango, Canzone di Mirka (Pazzali). Potpourri (Gilbert). 11.0 (approx.)—Close Down.

STRASBOURG (France)

Radio-Strasbourg (PTT). 869 kc/s (345 m.); 11.5 kW.
11.30 *a.m.*—*Gramophone Concert.* Ballad No. 4 (Chopin). Galathée (Massé). Romance (Rubinstein). Serenade (Strelezky). Etude de Concert (Tournier). Prayer (Hasselmanns). Selection (Abita). Scottish Cradle Song (Schwad). Impromptu (Vidal). Selection from "Countess Maritza" (Kálmán). March, The Cadets (Sousa).
12.45 *p.m.*—News in French and German. 1.0—Time Signal.
1.1—*Gramophone Concert.* Overture, "Romeo and Juliet" (Tchaikovsky). Suite funambulesque (Messager). Les Cigales (Chabrier). Colloque sentimental (Bordes). Maria Wiegenlied (Reger). Romance (Brahms). Les Emigrants (Gabaroche). Ne m'ecris plus (Lenois). Two Selections (Romans).
2.0—Programme for Children. 4.0—Popular Music on Gramophone Records. 4.45—Elocution Lesson in French.
5.0—*Orchestral Concert*, conducted by M. Roskam. March, Chiquita (Salzedo). Waltz, Memories of Eugen Onegin (Fetras). Extase poétique (Ackermans). Trio from "La Bohême" (Puccini). Serenade (Bonincontro). Selection from "Le Jongleur de Notre Dame" (Massenet). Liebeswalzer (Moszkovsky). Le Roi de Thulé (Diaz). Spanish March (Dub).
6.0—Historical Talk in French. 6.15—Talk in French: The Modern Town of Saigon.
6.30—*Orchestral Concert*, conducted by Maurice de Villers. Soloists: Jeanne Weber and M. Margulièes (Duets). *Delibes Programme.* Overture, "Le Roi l'a dit." Duets from "Lakmé." Orchestral Suite from "Le roi s'amuse." Selections from "Coppélia."
7.30—Time Signal. 7.31—News in French and German.
7.45—*Dance Music.* Foxtrot, Since I met you. Slow Foxtrot, Golden Sands. Ich darf dir keine Blumen schenken. Foxtrot, Me. A Faded Summer Love. Waltz Potpourri No. 3 (Robrecht). Foxtrot, It looks like love. Slow Foxtrot, You are the Melody. Rumba, Cuban Holiday. Foxtrot, Close your Eyes. Foxtrot, Singin' in the Bathtub. Foxtrot, Fall in love with me.
8.30—Chamber Music Concert. Soloists: M. Vasbender (Violin), M. Stiegler (Violin), M. Argoblast ('Cello) and Mme. Argoblast (Pianoforte). Sonata in D Major for Pianoforte, Two Violins and 'Cello (Corelli). Songs: (*a*) Comme la nuit (Bohn), (*b*) Si vous l'aviez compris (Denza). Aria for Violin and Pianoforte from the Suite in D Major (Bach). Songs (Schubert): (*a*) Ihr Bild, (*b*) Wiegenlied. Spanish Dance for Two Violins and Pianoforte (Palaschko). Songs: (*a*) Caro mio ben (Giordano), (*b*) Les Mamans (Archainbaud) La Félicité, for Two Violins and Pianoforte (Clérambault). Der Lenz (Hildach). Der Spielmann (Hildach). Romance, Op. 28 for Violin and Pianoforte (Svendsen). Song: Archibald Douglas (Loewe). Sonata for Two Violins, 'Cello and Pianoforte in B Flat Major (Corelli). 10.30 (approx.)—Close Down.

STUTTGART (MÜHLACKER) (Germany)

Süddeutscher Rundfunk. 832 kc/s (360.5 m.); 60 kW. Relayed by *Freiburg*, 527 kc/s (570 m.).
Transmits at intervals from 6.0 a.m. (Time, Weather and Gymnastics).
10.0 *a.m.* (from *Freiburg*)—String Quartet Concert. 11.0—News Bulletin. 11.15—11.30—Sponsored Gramophone Records. 12 *noon*—Concert from *Munich.* 12.50 *p.m.*—Time and News. 1.0—Gramophone Concert of Variety Music. 1.55—News Bulletin. 2.0—2.15—Sponsored Gramophone Records. 2.30—Elementary Spanish Lesson. 3.0—*Elementary English Lesson.*
3.30—See *Frankfurt.* 4.30—Heinrich Schaeff reads from his own Works.
5.0—See *Frankfurt.* 6.15—Time and Agricultural Report. 6.25—(from *Mannheim*)—Talk: Workers listen to the Radio. 6.50—See *Frankfurt.* 7.15—Time and Weather.
7.30 (from *Freiburg*)—Variety Programme.
8.0—"The Apothecary"—Opera Buffa in One Act (Haydn). 9.0—Reading.
9.20 (from Mannheim)—Songs and Recitations from the Works of C. M. Bellmann, by the Chamber Orchestra, conducted by Helmut Schlawing, Gertrude Rosenstock-Bender (Soprano), Dr. Ernst Cremer (Baritone) and Richard Dornseiff (Recitations). Baritone Solo: Weile an dieser Quelle. Soprano Solo: Gleichwie eine Schäferin. Soprano and Baritone Duet: Auf Amaryllis. Baritone Solos: (*a*) Nun stimme die Geige, (*b*) Herzliebste Bruder. Recitation. Baritone Solo: Weicht aus dem Weg. Recitation. Baritone Solo: Nun weine, Vater, spiele. Recitation. Baritone Solos: (*a*) Die Glocken, horch, mit bagem Ton, (*b*) Trink aus dein Glas! Soprano Solo: Sieh, an Haga's trauter Stätte. Soprano and Baritone Duet: Tritt vor du Gott der Nacht. Baritone Solo: Weile an dieser Quelle.
10.20—News Bulletin. 10.45—Concert from *Langenberg.* 12 *midnight* (approx.)—Close Down.

TOULOUSE (France)

Radiophonie du Midi. 779 kc/s (385 m.); 8 kW.
Transmits at intervals from 12.45 p.m. 5.0 *p.m.*—Picture Transmission. 5.15—Hawaiian Guitar Selections. 5.30—News Bulletin. 5.45—Orchestral Selections from "The Valkyries" (Wagner). 6.0—Light Music. 6.15—*Songs from Opera.* Arias from "Aïda" (Verdi), "La Juive" (Halévy) and "Samson and Delilah" (Saint-Saëns). 6.30—News and Exchange. 6.45—Dance Music. 7.0—Tourist Talk: Versailles. 7.15—Accordion Music. 7.30—News and Racing Results. 7.45—Dance Music.
8.0—*Concert of Viennese Music.* Waltz, Moonlight on the Alster (Fetras). Waltz, Wienerblut (Johann Strauss). Waltz, Roses from the South (Johann Strauss). Waltz, Wine, Woman and Song (Johann Strauss). Selection from "The Dollar Princess" (Fall). Rhapsody, España (Chabrier). Waltz, Golden Rain (Waldteufel). Waltz (Johann Strauss).
8.30—Sound Film Music. 8.45—*Orchestral Selections.* Selection from "The Fair at Sorochinsk" (Moussorgsky). Japanese Lantern Dance (Yoshitomo). Chinese Serenade (Siede). Selection (Buerra).
9.0—*Operetta Music.* Selections from "Le Grand Mogol" (Audran), "François les Bas bleus" (Messager) and "Rip Van Winkle" (Planquette).
9.15—Accordion Music. 9.30—*Variety Music.* Largo (Händel). Parlez-moi d'amour (Lenoir). Lydia (Fauré). Les rêves sont des bulles de savon (Hermite). 9.45—Military Music. 10.0—Variety Music on Gramophone Records.
10.15—*Songs from Opéra-Comique.* Quartet from "Manon" (Massenet). Selections from "Werther" (Massenet). 10.30—News Bulletin.
10.45—*Orchestral Selections.* Italian Serenade (Wolf). Selection (Boix). Serenade for the Doll (Debussy).
11.0—*Concert.* Overture, "Norma" (Bellini). Selection from "The Smiling Lieutenant" (O. Straus). Musette (Marceau). Perles de cristal (Hamel). Choupette (Vacher). Selection from "Hérodiade" (Massenet). Selection from "Lakmé" (Delibes). Selection from "Louise" (Charpentier). Je sais que vous êtes jolie (Christiné) Serenade, The Glow Worm (Botrell). In the interval at 11.15—North African News. 12 *midnight*—Weather, Announcements and Close Down.

TRIESTE (Italy)

Ente Italiano Audizioni Radiofoniche. 1,211 kc/s (247.7 m.); 10 kW.
Transmits at intervals from 8.15 a.m. 7.5 *p.m.*—*Quintet Concert.* Oriente (Cortopassi). Invocation (Cilea). Canzone dell'acqua (Amadei). Cavallo bianco (Billi). Selection from "Clo-Clo" (Lehár). Passion (Ranzato). Molly and Jolly (Plessow).
8.0 till Close Down—See *Turin.*

TURIN (Italy)

Ente Italiano Audizioni Radiofoniche. 1,096 kc/s (273.7 m.); 7 kW. Relayed by *Milan*, 905 kc/s (331.5 m.), and *Genoa*, 959 kc/s (312.8 m.).
Transmits at intervals from 8.15 a.m. 7.5 *p.m.*—*Programme of Light Music.* Overture (Maillart). The Black Domino (Ostali). Russian Song for Violin (Smith). Hungarian Dance, No. 5 (Brahms).
7.30—Time Signal and Programme Announcements. 7.31—Light Music on Gramophone Records. 8.0—Giornale Radio and Weather Report. 8.15—Programme of Popular Music. 8.30—Talk for Housewives.
9.0—Relay of an Opera. In the intervals: Film Notes, Talk and Giornale Radio. After the Opera: News Bulletin.

VIENNA (Austria)

Radio-Wien. 581 kc/s (517 m.); 15 kW. Relayed by *Graz*, 852 kc/s (352.1 m.); *Innsbruck*, 1,058 kc/s (283 m.); *Klagenfurt*, 662 kc/s (453.2 m.); *Linz*, 1,220 kc/s (246 m.), and *Salzburg*, 1,373 kc/s (218 m.).
Transmits at intervals from 9.20 a.m.
5.0 *p.m.*—*Concert by the Vienna Chamber Orchestra*, conducted by Friedrich Hartmann. Overture and Ballet Music from "Rosamunde" (Schubert). Prelude and Gavotte from the Holberg Suite (Grieg). Selections from the Arlésienne Suite (Bizet). Waltz, Die Werber (Lanner). Pieces for Horn Quartet: (*a*) Hunting Chorus (Hänsel), (*b*) Three Folk Songs, (*c*) Das Waldvöglein (Doppler). Overture, "The Queen's Kerchief" (Johann Strauss). Waltz, Gold and Silver (Lehár). Radetzky March (Johann Strauss).
6.10—Talk: The Syllabus for Broadcasts for Schools in May. 6.25—Talk for Women. 6.45—Talk, arranged by the Chamber of Commerce. 7.5—Talk: Men who wanted to change the World: Tolstoi. 7.30—Time Signal, Weather and Programme Announcements. 7.40—Book Review.
8.10—"I Masnadieri"—Opera in Four Acts (Verdi), by the Vienna State Opera Chorus and the Volksoper Orchestra, conducted by Oswald Kabasta. 10.20—Weather, News and Announcements. 10.35—Dance Music, relayed from the Sacher Café.

WARSAW (Poland)

Polskie Radio. 212.5 kc/s (1,411 m.); 120 kW.
11.20 *a.m.*—Aviation Weather Report. 11.25—Interval. 11.45—Press Review. 11.58—Time Signal and Bugle Call from the Tower of St. Mary's Church, *Cracow.* 12.5 *p.m.*—Programme Announcements. 12.10—Weather Report. 12.15—Agricultural Talk.
12.35—Concert for Schools: Polish Music by the Warsaw Philharmonic Orchestra, conducted by Wolfstal, with Introductory Talk by Charles Hlawiczka. Soloists; M. Janovsky (Tenor), W. Kochansky (Violin) and Ladislaus Raczkovsky (Pianoforte). 2.0—2.45—Interval.
2.45—Light Music on Gramophone Records. 3.5—Economic Report and Exchange Quotations. 3.15—Announcements. 3.20—Interval.
3.25—Talk on History. 3.45—Hydrographic Report. 3.50—Programme for Children. 4.15—Interval.
4.20—Intermediate French Lesson. 4.40—Educational **Musical Programme.** 5.10—Talk by J. Pruchnik.
5.35—Song and Pianoforte Recital, by Lucie Drege-Schiel (Pianoforte) and S. Argasinska (Soprano). 6.50—Miscellaneous Items. 7.15—Agricultural Correspondence. 7.25—Programme Announcements. 7.30—Sports Notes. 7.35—Light Music on Gramophone Records. 7.45—Radio Journal. 8.0—Reading.
8.15—*Concert of Light Music by the Station Orchestra*, conducted by Stanislaus Nawrot. Soloists: Mierzejevsky (Vocalist), and Louis Urstein (Pianoforte). Overture, "Donna Juanita" (Suppé). Verschmähte Liebe (Lincke). Songs: (*a*) Douces Souffrances (Barthélemy—Caruso), (*b*) Reviens (Denza), (*c*) Tu m'aimes encore (Krupinsky). Ballet Scene, The Butterfly (Montague Ewing). Polonaise from "Les Millions d'Arlequin" (Drigo). Polka (Drigo). Songs: (*a*) Air from "The Czarevitch" (Lehár), (*b*) Song (Piotrovsky). Rumba from "Schön ist die Welt" (Lehár). Carnaval japonais (de Basque). Rusticanella (Cortopassi). Parade of Jack and Jill (Mayhew). 9.15—See *Cracow.*
10.0—Farewell Concert by the Prize-winners in the Second International Chopin Competition.

FRIDAY (April 29)

PRINCIPAL EVENTS

SYMPHONY CONCERT
8.15 p.m. Warsaw: Philharmonic.

CONCERTS (Vocal and Instrumental)
5.0 p.m. Langenberg: D'Albert's music.
8.0 „ Stuttgart, Frankfurt: Programme by several orchestras.
9.0 „ Italian Stations (Northern): Light Programme.
9.0 „ Munich: Wireless Orchestra.
10.15 „ Copenhagen.
10.20 „ Vienna: Popular.
10.45 „ Frankfurt, Stuttgart: Negro Spirituals.
10.45 „ (approx.) Leipzig: A programme of first performances.

OPERAS AND OPERETTAS
8.25 p.m. Heilsberg: "Need" (Hufeld) (First performance).
8.45 „ Rome: "Les Cloches de Corneville" (Planquette).

CHAMBER MUSIC
8.0 p.m. Schweizerischer Landessender: Loeffler Quartet.
8.10 „ Radio-Suisse Romande: French Music.
8.30 „ Strasbourg: Sextet, Octet, etc.
9.0 „ Oslo: Violin and Pianoforte.

RECITALS
7.0 p.m. Heilsberg: Songs.
8.0 „ Brussels No. 2: Pianoforte.

PLAYS AND TALKS
4.45 p.m. Radio-Paris: "The History of Music," XXIII (Chantavoine).
8.15 „ Breslau, other German Stations, Vienna: "A little Melody" (radio play with music).
8.30 „ Radio-Paris: "L'Arlésienne" (Daudet), Bizet's Music.
9.30 „ Hamburg: "An intellectual Theatre of War" (Prof. Dessauer).

DANCE MUSIC
10.0 p.m. Leipzig: Jazz on two pianofortes.
11.0 „ Copenhagen: (till 12.15).

The Danish Johann Strauss

Lumbye's is a name which often appears in the more lighthearted programmes of COPENHAGEN station; one of his waltzes is being played this afternoon, and Sunday's concerts there included no fewer than six of his pieces. Born in Copenhagen in 1810, he was a contemporary of the Viennese

H. C. Lumbye

Lanner and the elder Johann Strauss, and, like them, devoted his gifts to the music of the ballroom and the march. Like them, too, he had a band of his own; its home was the Tivoli, at Copenhagen, but it made many tours, playing, for the most part, Lumbye's own music, like *Krolls Ballroom Echoes*, *A Summer Night in Denmark*, and many another Danish counterpart of *The Blue Danube*. Such was his renown that when he retired at the age of fifty-five—and then, again, he followed the example of the elder Johann Strauss in handing on his task as composer and conductor to a son—he was given the rank of Imperial Councillor. He was Hans Christian Lumbye; the son who followed in his steps was Karl, and another son, Georg, achieved distinction as a composer for the stage. Copenhagen, their birthplace, is rightly proud of them and of the gay music they gave to their own country and its capital.

A Diversity of Orchestras

STUTTGART Station, with FRANKFURT relaying the programme, has had the happy idea of bringing together on one platform—that of the Liederhalle—several orchestras whose usual tasks do not, as a rule, make for community of ideals. The programme is to be opened by a normally constituted concert orchestra, playing Tchaikovsky's *Italian Capriccio*. It was written during a holiday which he spent in the South, finding there the nearest approach to happiness and peace of mind which was possible to one of his nerve-wracked temperament. He wrote of it confidently, in letters to friends at home, as the gayest music he had conceived for a long time, as having captured in its strain something of the warmth and sunshine in which he was revelling. The Capriccio includes some genuine Italian music, and more than once trumpets sound the actual notes of the call Tchaikovsky was hearing regularly from a cavalry barracks close to his own quarters. That is to be followed by the joyous waltz "Tales from the Vienna Woods," by the younger Johann Strauss. It is a happy coincidence which allows listeners to hear it an hour or so before a piece of Danish dance music of the same splendid order. Not quite, it may be, on the same high level as *The Blue Danube*, or *The Fledermaus Waltz*, it is, none the less, such fine music of its class as to have made Strauss's name immortal if he had written no more. From it we are to pass, by way of popular descriptive and march melodies, to the dance tunes of the present day, and, by way of still further variety, to Dajos Bela and his Hungarian "Jazz-Symphonists."

NATIONAL

	kc/s.	m.	kW.
London:	1,148	261.3	50
Daventry:	193	1,554.4	30
Northern:	995	301.5	50

10.15 *a.m.*—The Daily Service.
10.30—Time Signal (Greenwich); Shipping Forecast.
10.45—11.0—"The Week in Westminster." Miss F. Horsbrugh, M.P.
12 *noon*—Emanuel Starkey and his Orchestra. Regal, Marble Arch.
12.45 *p.m.*—Organ Recital by Herbert Dawson.
1.0—Time Signal (Greenwich).
1.30—New Gramophone Records.
2.30—Rural Science. Mr. C. E. Hudson: "The School Garden."
2.55—Interval.
3.0—"Life and Work in the British Isles"—II.
3.20—Interval.
3.30—Concert to Schools.
4.15—The Edinburgh Studio Orchestra, directed by Guy Daines.
4.45—Time Signal (Greenwich).
5.15 (Daventry)—The Children's Hour.
5.15 (London and Northern)—The B.B.C. Dance Orchestra.
6.0—"The First News."
6.30—Time Signal (Greenwich).
6.30—The Foundations of Music. Handel's Pianoforte Music.
6.50—"The Week-End in the Garden"—XVI.
7.5—7.25—Mr. O. Mase, Assistant-Music Director of the B.B.C.: "Music in the Coming Programmes."
7.30—"The Changing Face of Nature"—III. Professor James Ritchie, D.Sc.
8.0—"New Songs for Old." A Programme arranged by Gordon McConnel and Christopher Stone.
9.0—Time Signal (Greenwich).
9.0—"The Second News."
9.15—Shipping Forecast; New York Stock Market Report.
9.20—"Here and Now." Mr. Gerald Barry.
9.35—Chamber Music. Robert Maitland (Baritone). The Catterall String Quartet: Arthur Catterall (Violin); Laurance Turner (Violin); John Fry (Viola); Herbert Withers (Violoncello).

(*Continued at foot of column 2.*)

REGIONAL

	kc/s	m.	kW.
London:	842	356.3	50
Midland:	752	398.9	25
Northern:	626	479.2	50

10.15 *a.m.* (London and Northern)—The Daily Service.
10.30—11.0 (London and Northern)—Daventry National Programme.
11.30—12 *noon* (London)—Experimental Television Transmission (Baird Process).
12.0—Frank Newman at the Organ.
1.0 *p.m.*—The New Victoria Cinema Orchestra, conducted by Haydn Heard.
2.0—3.0—The Northern Studio Orchestra. Arthur Roebuck (Baritone).
5.15—The Children's Hour.
6.30 (London)—The Cedric Sharpe Sextet. Cuthbert Smith (Baritone).
6.30 (Midland)—The Studio Orchestra. Norman King (Tenor). James Donovon (Saxophone).
6.30 (Northern)—The Studio Orchestra. Dorothy Donaldson (Soprano). Rex O'Grady at the Organ.
7.45 (London)—The B.B.C. Dance Orchestra, directed by Henry Hall.
8.0 (Midland)—The Midland Competition Festival (Winners' Concert). From The Town Hall, Birmingham.
8.15 (London and Northern)—Community Singing. Listeners are once again invited to join with The National Chorus.
9.0 (London)—A Pianoforte Recital by Margareta Harvey-Samuel.
9.0 (Northern)—The Studio Orchestra.
9.15 (Midland)—Light Music. Ernest Parsons and his Orchestra.
9.20 (London)—The B.B.C. Orchestra (Section E), conducted by Stanford Robinson.
9.30 (Northern)—"A Work of Art." A Play in One Act by Vivian Tidmarsh.
10.15—"The Second News."
10.35—N.0 (Midland)—As London.
10.35—12 *midnight* (London and (Northern)—Dance Music.

11.0—12 *midnight*—Dance Music.
11.30—Time Signal (Greenwich).

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)

825.3 kc/s (363.3 m.); 13 kW.
Transmits at intervals from 12.30 p.m. 7.0 *p.m.*—Recital of Tangos and Waltzes. 7.15—Financial Notes and Exchange Quotations. 7.25—Shipping Notes, Weather Forecast and Agricultural Report. 7.30—Agricultural Talk. 7.45—Soloist Recital. 7.55—News and Time Signal. 8.0—Lehar Festival in celebration of the Composer's 62nd Birthday. 9.15—Chansonnettes from Sound Films. 9.30—Dance Music relayed from the Municipal Casino.

BARCELONA (Spain)

Radio-Barcelona (EAJ1). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 8.30 a.m. 8.0 *p.m.*—*Concert by the Station Trio.* Serenade (Delmas). Selection from "Chérubin" (Massenet). Berceuse de Jocelyn (Godard). Intermezzo from "Cavalleria Rusticana" (Mascagni). 8.30—Exchange Quotations and Elementary French Lesson. 9.0—Request Gramophone Records and News Bulletin. 10.0—Chimes, Weather Forecast and Market Prices, followed by Relay of Foreign Stations. 10.30—Concert by the Station Orchestra. 11.0—Argentine Programme by Raul de Sander. 11.30—Dance Music by the Vilalta Orchestra, from the Café Español. 1.0 *a.m.* (*Saturday*)—Close Down.

BELGRADE (Yugoslavia)

697 kc/s (430.4 m.); 2.5 kW.
Transmits at intervals from 9.55 a.m. 3.0 *p.m.*—Divine Service Relay. 8.0—A Dramatic Legend. 9.20—News Bulletin.

BERLIN (Germany)

Königs Wusterhausen. 183.5 kc/s (1,635 m.); 60 kW.
Transmits at intervals from 5.45 a.m. 12 *noon*—Weather for Farmers, followed by Gramophone Concert: A Musical Tour of the World and Weather for Farmers. 12.55 *p.m.*—Nauen Time Signal. 1.30—News Bulletin. 2.0—Gramophone Concert from *Berlin* (*Witzleben*). 3.0—Talk on Gioachino Rossini. 3.30—Weather and Exchange. 3.40—Talk for Young People. 4.0—Educational Talk.
4.30—Concert from *Leipzig*. 5.30—Talk: Realism in the Literature of the Nineteenth Century. 6.0—Talk: Tilly, the Man and the Soldier, on the Tercentenary of his Death. 6.30—Talk on Economics. 6.55—Weather for Farmers. 7.0—Talk for Doctors. 7.30—Talk: North German Writers. 7.55—Weather for Farmers. 8.0 till Close Down—See *Berlin* (*Witzleben*). 12.30 *a.m.* (*Saturday*)—Close Down.

BERLIN (Germany)

Witzleben. 715 kc/s (419.5 m.); 1.5 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics and Gramophone Concert). 6.0 *p.m.*—Reading. 6.25—Book Review. 6.35—"The Witzleben Station informs its Listeners. . . ." 6.40—Topical Talk. 6.50—*Concert by the Station Orchestra* conducted by Alois Melichar. Fantasia on Two Russian Folk Songs, Kamarinskaja (Glinka). Indian Song from the Suite, Op. 48, No. 2 (MacDowell). Caucasian Dance, Lesghinka, from the Suite "Iveria" (Ippolitov-Ivanov). Slavonic Dances, Op. 46, Nos. 3 and 6 (Dvorák). Three Waltzes in C (Melichar). Symphonic Suite (Ibert). Rhapsody in F (Liszt). 8.0—Talk by Kurt Sell: What People are talking about in America, relayed from *America*. 8.15—See Breslau. 9.30—News and Sports Notes. 9.40—The Wireless Calendar—April. 10.35—Weather, News and Sports Notes. 10.40 (approx.)—Dance Music from the Europa Pavillon. 12.30 *a.m.* (*Saturday*)—Close Down.

BORDEAUX-LAFAYETTE (France)

(PTT). 986 kc/s (304 m.); 13 kW.
Transmits at intervals from 12 noon. 6.0 *p.m.*—Literary Talk, illustrated by Recitations. 7.30—News Bulletin. 7.40—Educational Talk. 7.55—Lottery Results. 8.0—Advanced Spanish Lesson. 8.15—News and Weather Forecast. 8.30—Concert by the Arca Symphony Orchestra. Soloist: Mlle. Bastine de Delurcy (Vocalist). After the Programme, Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)

1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 10.30 a.m. 6.0 *p.m.*—Sports Notes. 6.20—Literary Report. 6.40—German Transmission. 7.0—See *Prague*. 7.20—Concert of Popular Music. 8.0—See *Prague*. 10.15—Programme Announcements. 10.20—Czigány Music relayed from the Elisabeth Café.

BRESLAU (Germany)

923 kc/s (325 m.); 1.5 kW. Relayed by *Gleiwitz*, 1,184 kc/s (253 m.).
Transmits at intervals from 6.30 a.m. 6.15 *p.m.*—Modern Music Criticism. 6.40—Technical Talk: The Elimination of Interference. 6.50—Weather Forecast, followed by Talk: The Philosophy of Creative Development. 7.15 (from *Gleiwitz*)—Weather Forecast, followed by Programme of Spring Songs. 7.55 (from *Gleiwitz*)—Weather Report. 8.0—Relay from America: What they are talking about in America.
8.15—A Little Melody—Radio Play (Schwabach) with music by Wilhelm Grosz. 9.30—News Bulletin. 9.40—Topical Talk. 10.10—Time Signal, Weather Forecast, Press Review, Sports Notes and Programme Announcements. 10.30—Dance Music by the Station Orchestra, conducted by Franz Marszalek. In the interval: "Da Capo"—a Résumé of the Evening's Successes, and at 11.10 (approx.)—Sound News from the Deli Theatre. 12 *midnight* (approx.)—Close Down.

BRNO (Czechoslovakia)

878 kc/s (342 m.); 35 kW.
Transmits at intervals from 10.30 a.m. 6.0 *p.m.*—Topical Talk. 6.15—Programme for Women. 6.25—German Transmission: News and Reading. 7.0—See *Prague*. 7.20—Programme of Light Music. 8.0—See *Prague*. 10.15—Announcements. 10.20—See *Prague*.

BRUSSELS (Belgium) (No. 1)

I.N.R. 590 kc/s (509 m.); 15 kW.
12.15—1.45 *p.m.*—Weather and

Variety Music on Gramophone Records.

5.0—*Orchestral Concert*, conducted by Jean Kumps. Overture in the Italian Style (Schubert). Rendezvous (Aletter). Dance of the Tulips (Van Oost). Waltz, The Bridge of Love (Van Oost). Selection from "Cocorico" (Ganne). Si j'étais jardinier (Chaminade). Legend (Calludi). L'appel d'amour (Clarcke). Waltz (Ackermans). Village Fair (Filippucci). 6.0—Variety Music on Gramophone Records. 6.15—Dance Music on Gramophone Records.

6.30—*Gounod Gramophone Concert*. Selections from "Mirella," "The Queen of Sheba," "Romeo and Juliet" and "Faust." 7.15—Talk: Fear of visiting the Dentist. 7.30—Music Review.

8.0—*Orchestral Concert*, conducted by Jean Kumps. Soloist: José Mommaert (Pianoforte). Overture, "Le Cheval de Bronze" (Auber). Selection from "Micheline" (Dargel). Idylle d'Oiseaux (Sermon). Aubade Istrienne (Sudessy). Sous la Feuillée (Sandré). Hungarian Scenes (Maquet). Pianoforte Solo: Rhapsody No. 1 (Brahms). Waltz, Les Moulins qui chantent (Van Oost). 8.45—Talk by Senator Demets. 9.0—*Concert (continued)*. Orchestral Suite, La Cigale (Massenet). Pianoforte Solos: (*a*) Fantasia No. 3 (Benoit), (*b*) Jardins sous la Pluie (Debussy). Suite, Juegos (Turina). Serenade (Widor). Suite, The Sleeping Beauty (Tchaikovsky). 10.0—Le Journal Parlé.

BRUSSELS (Belgium) (No. 2)

N.I.R. 887 kc/s (338.2 m.); 15 kW. Programme in Flemish.

12.15—1.45 *p.m.*—Weather and Gramophone Concert. Selection from "The Daughter of the Regiment" (Donizetti). Waltz, Künstlerleben (Johann Strauss). Selection from "Le Grand Mogol" (Audran). If I ever lost you (Payne). Ali Baba's Camel (Gay). Quadrille from "Die Fledermaus" (Johann Strauss). Polka (Fucik). Nachtigall in Flederbusch (Krome). Two Selections (Rathke). Cavatina (Raff). Les Fauvettes (Bousquet). Schubertiana (Schubert-Melichar). Selection from "Samson and Delilah" (Saint-Saëns). Lehar Potpourri (Geiger). Overture, Im Reich des Indra (Lincke).

5.0—Concert from the Hotel Atlanta. 6.0—Variety Music on Gramophone Records. 6.15—Talk. 6.30—Variety Music on Gramophone Records. 7.15—Talk by Dr. Van Oye. 7.30—Wireless Notes. 8.0—Pianoforte Recital by Mlle. A. M. Persin. Italian Concerto (Bach). Nocturne in C Minor (Chopin). Prelude in B Flat Minor (Chopin). Sonatine (Ravel). 8.30—"*De Giftmengers*"—Comedy (Schmidt). 9.0—Concert relayed from L'Ancienne Belgique. 10.0—Le Journal Parlé.

BUCHAREST (Romania)

Radio-Bucarest. 761 kc/s (394 m.); 12 kW.

7.0 *p.m.*—Divine Service from the Amza Church, followed by News Bulletin.

BUDAPEST (Hungary)

545 kc/s (550 m.); 18.5 kW. Transmits at intervals from 9.15 a.m. Programme also relayed on 210 m. from 7.30 p.m.

5.30 *p.m.*—Concert by Edith Diosy (Vocalist), Dezsö Dani (Vocalist) and Gyula Baranyai ('Cello). 6.40—Shorthand Lesson. 7.0—Talk on Electro-Technics. 7.30—Orchestral Concert of Light Music. 8.20—Talk on Foreign Affairs.

8.35—"*Alexander Kisfaludy*"—Play (Paul Bodrogh), followed by Cigány Concert from the Hotel Metropol. 11.0—Talk in French: A French Delegation at Budapest in 1885.

COPENHAGEN (Denmark)

1,067 kc/s (281 m.); 0.75 kW. Relayed by *Kalundborg*, 260 kc/s (1,153 m.).

Transmits at intervals from 7.30 a.m. (Gymnastics).

12.0 *a.m.*—Weather Forecast. 11.10—Fishing Notes. 12 *noon*—Time and Chimes from the Town Hall.

12.2 *p.m.*—String Ensemble Concert from the Hotel d'Angleterre. 2.0—2.40—Interval.

2.40—*Wind-Instrument Concert*, conducted by Johannes Andersen. Soloist: Sören Stein (Vocalist). March, Hispania (Dreyer). Overture, "Le Caïd" (Thomas). Treasure Waltz from "The Gipsy Baron" (Joh. Strauss). Selection from "The Witch" (Enna). Solveig's Song from "Peer Gynt" (Grieg). Prelude to Act Three of "Saul and David" (Carl Nielsen). March from "Der lustige Krieg" (Joh. Strauss). Songs (Sinding): (*a*) Rav, (*b*) Perler, (*c*) Der skreg en Fugl, (*d*) Mange drömmer, (*e*) Sylvelin, (*f*) Det er Nat saa vide, (*g*) Det unge brusende Foraar. March (Ziehrer). Selections (Offenbach): (*a*) Overture, "Les Brigands," (*b*) Polonaise from "La Vie Parisienne." Waltz, Nordlys (Lumbye). Sagn (Tofft). Viennese Melodies (Kliment). March (Sönderby).

4.40—Programme for Children. 5.40—Exchange and Fish Market Prices. 5.50—Talk: Great Danish Writers—Hans Adolf Prorson. 6.20—German Lesson for Beginners. 6.50—Weather Forecast. 7.0—News Bulletin. 7.15—Time Signal. 7.20—Talk on Physiology. 7.50—Programme by Per. Knutzon. 8.0—Chimes from the Town Hall.

8.2—West Norwegian Programme, relayed from *Bergen*, 824 kc/s (364 m.): Talks, Orchestral Selections and Folk Melodies.

9.0—"*The Post Office*"—Play in Two Acts (Rabindranath Tagore), with Music by Emil Reesen. 10.0—News Bulletin.

10.15—Concert of the Music of Axel Grandjean. The Station Orchestra, conducted by Emil Reesen and Soloists. Talk on Axel Grandjean. March from "Oluf." Songs by Holger Bruusgaard: (*a*) Aria from "Colomba," (*b*) Cavatina from "Oluf," (*c*) Du Klang, som engang vakt. Songs by Ellen Knudsen: (*a*) Ingeborg's Song from "Oluf," (*b*) Bölge mod Kyst, (*c*) Foraar. Chinese Dance from "I Karnevalstiden." Gallop from the Ballet "Bacchus-Festen." Songs by Poul Knudsen: (*a*) Oluf's Song from "Oluf," (*b*) Erindrer du, det var en Foraarsdag? (*c*) Du dejlige Rosenknop.

11.0—Dance Music from the Palace Hotel. In the interval at 12 *midnight*—Time and Chimes from the Town Hall. 12.15 *a.m.* (*Saturday*)—Close Down.

CRACOW (Poland)

959 kc/s (312.8 m.); 1.5 kW. Transmits at intervals from 11.45 a.m.

6.50 *p.m.*—Talk for Women. 7.5—Programme Announcements. 7.10—Radio Journal. 7.30—10.50—See *Warsaw*. 10.50—Dance Music. 12 *midnight* (approx.)—Close Down.

DUBLIN (Ireland)

(2RN). 725 kc/s (413 m.); 1.2 kW. Relayed by *Cork*, 1,337 kc/s (224.4 m.).

1.30—2.0 *p.m.*—Time Signal, Weather Forecast, Stock Report and Light Music on Gramophone Records. 6.0—Popular Music on Gramophone Records. 6.15—Programme for Children. 7.0—Light Music on Gramophone Records. 7.20—News Bulletin. 7.30—Time Signal. 7.31—Gardening Talk. 7.45—Scene from "Much Ado About Nothing." 8.0—Station Sextet. 8.20—Amhrain. 8.30—Talk on the Spring Show by E. Bohane. 8.45—Soprano Solos. 9.0—Concert by the Waterford Gaelic League, relayed from the Town Hall, Waterford. 10.0—Songs and Stories by Fay Sargent. 10.15—Station Sextet. 10.30—Time Signal, News, Weather Report and Close Down.

FÉCAMP (France)

Radio Normandie. 1,364 kc/s (219.9 m.); 10 kW.

Transmits at intervals from 12 noon.

7.30 *p.m.*—News Bulletin. 7.45—Announcements. 8.0—Agricultural Report. 8.15—News Bulletin. 8.30 (from *Le Havre*)—Le Havre Chronicle and Concert.

11.0 *p.m.*—1.0 *a.m.* (*Saturday*)—Variety Concert. 1.0 (approx.)—Close Down.

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.5 kW. Relayed by *Cassel*, 1,220 kc/s (246 m.).

Transmits at intervals from 6.0 a.m.

12 *noon*—*Orchestral Concert*. Overture, "Le brasseur de Preston" (Adam). Jeux d'enfants, Op. 22 (Bizet). Ballet Scenes from "Hamlet" (Thomas).

12.50 *p.m.*—News Bulletin. 12.55—Time Signal.

1.0—*Gramophone Concert*. Overture, "Czar and Carpenter" (Lortzing). Song from "Der Freischütz" (Weber). Selections from (*a*) "Das Nachtlager von Granada" (Kreutzer), (*b*) "Hansel and Gretel" (Humperdinck). Song from "Tannhäuser" (Wagner). Selections from (*a*) "Die Walküre" (Wagner), (*b*) "Tristan und Isolde" (Wagner), (*c*) "Helen of Egypt" (R. Strauss).

2.0—News Bulletin. 2.10—Sponsored Gramophone Concert. 3.0—Weather Report. 3.5—Time and Economic Notes. 3.20—Talk on Photography. 4.55—Economic Notes. 5.0—Concert from *Langenberg*. 6.15—Economic Notes. 6.25—Talk on the Rhineland. 6.50—10.45—See *Stuttgart*.

10.45—Recital of Negro Spirituals by Victor Orsin (Tenor) and Hans Rosbaud (Pianoforte).

11.15—Orchestral Concert of Old Berlin Music. 12 *midnight* (approx.)—Close Down.

HAMBURG (Germany)

Norag (ha, in Morse). 806 kc/s (372 m.); 1.5 kW. Relayed by *Bremen*, 1,112 kc/s (270 m.); *Flensburg*, 1,373 kc/s (218 m.); *Hanover*, 530 kc/s (566 m.) and *Kiel*, 1,292 kc/s (232.2 m.).

Transmits at intervals from 5.45 a.m.

6.0 *p.m.*—Review of Books on the Chinese-Japanese Crisis. 6.35—Talk: Workers and their Callings—Officials on the German State Railways. 6.55—Frankfurt Exchange and Hamburg Market Prices. 7.0—Topical Talk. 7.15—Weather Report.

7.20—*Concert from the Works of Kücken, Abt and Hildach*, by Gertrude Ladendorf, Lola Fischer, Herbert Ernst Groh and Bernhard Jakschtat (Songs), Hans Rosenlöcher (Violin), the Norag Choir and the Little Norag Orchestra, conducted by Fritz Gartz. Songs: (*a*) O Jugend wie bist du so schon (Abt), (*b*) Die Träne (Kucken), (*c*) Spielmannslied (Hildach). Baritone Solo: Wenn man beim Wein sitzt (Abt). Choral Selection: Ach wie ist's moglich dann (Kucken). Song: Mein Himmel auf Erden (Abt). Duets: (*a*) Barcarolle, Treibe, treibe Schifflein (Kücken), (*b*) Im blühenden Garten (Hildach). Song: Der Lenz (Hildach).

8.0—See *Berlin*. 8.15—Concert relayed from *Breslau*. 9.30—Prof. Friedr. Dessauer—Report from an Intellectual Theatre of War. 10.30—Time and News.

10.45—*Concert of Light Music* by Gertrude Ladendorf, the Norag Choir and the Little Norag Orchestra, conducted by Fritz Gartz. Overture, "Casanova" (Lincke). Selection from "The Pearl Fishers" (Bizet). Dance of the Dervishes from "Des Königs Maskenball" (Bendix). Russian Rhapsody (Heusser). Selections for Soloist and Choir: (*a*) Nelly was a lady (Foster), (*b*) De little ole log cabin (Hays). Marche lorraine (Ganne).

HEILSBERG (Germany)

1,085 kc/s (276.5 m.); 60 kW. Relayed by *Danzig*, 662 kc/s (453.2m.).

Transmits at intervals from 6.30 a.m.

11.30 *a.m.*—Concert from *Breslau*.

1.5—2.30 *p.m.*—*Concert by the Little Orag Orchestra*, conducted by Eugen Wilcken. Overture, "Im Hochland" (Gade). Liebeswalzer (Moszkovsky). Intermezzo from "William Ratcliff" (Mascagni). Mariettas Lied zur Laute (Korngold). Selection from "Eugen Onegin" (Tchaikovsky). Schatzwalzer (Johann Strauss). Overture, "Il Guarany" (Gomez).

3.30—Programme for Children. 4.0 (from *Danzig*)—Talk for Women. 4.30—See *Leipzig*. 5.30—Gramophone Records of Popular Sound Film Music. 6.15—Market Prices. 6.30—Talk: Can Photography be a Medium of Artistic Expression?

7.0—To Music—(Ludmilla Schirmer Song Recital. Die Töne (Spöberl). Für Musik (Franz). Meine Lieder, meine Sange (Weber). Ein Ton (Cornelius). Der Musikant (Hugo Wolf). Wer hat dies Liedlein erdacht (Mahler). Ein kleines Lied (Kuhn). Ein altes Lied (Kreisler). An die Musik (Schubert).

7.30—Talk: Goethe and America. 7.55—Weather Forecast. 8.0—Talk by Kurt Sell: What they are talking about in America, relayed from Washington. 8.15—Introduction to the following Transmission—by the composer. 8.25—"Need"—Wireless Opera (Arno Hufeld). 9.20—Announcements. 9.30—Ballads and Poems by Ludwig Uhland, on the 145th Anniversary of his Birth. 10.10—News Bulletin.

HILVERSUM (Holland)

1,004 kc/s (298.8 m.); 8.5 kW.

7.25 *a.m.*—10.40 *p.m.*—Programme of the Workers' Radio Society (VARA).

7.25—7.40 and 8.10—8.25 *a.m.*—Physical Culture. 8.40—10.40—Variety Music on Gramophone Records. 10.40—Religious Programme by the Liberal Protestant Radio Society (VPRO). 10.55—Recitations. 11.10—Septet Concert, conducted by Is. Eyl. 11.40—Programme for Women. 11.55—Concert (continued).

12.40—4.40 *p.m.*—Programme by the Algemeene Vereeniging Radio Omroep (AVRO). 12.40—Time Signal.

12.41—*Concert by the Little Wireless Orchestra*, conducted by Nico Treep. Overture, "Maritana" (Wallace). Ballet Music from "Undine" (Lortzing). Waltz, Verschmähte Liebe (Lincke). Auf Flotows Spüren (Urbach). Variety Music on Gramophone Records. Humorous Variations on Was kommt dort von der Höh' (Suppé). Die Wachtparade kommt (Eilenberg). Waltz, Gold and Silver (Waldteufel). Fairy Feet (Finck). Minuet (Thomé). Variety Music on Gramophone Records. Selection from "The Circus Princess" (Kálmán). AVRO March (Treep). 2.40—Talk for Schools.

3.10—*Concert by the Wireless Chamber Orchestra*, conducted by Louis Schmidt. Overture, "Banditenstreiche" (Suppé). Waltz, Traumideale (Waldteufel). Selection, Klänge aus Arkadien (Morena). Selection (de Smetzky). Summer Afternoon (de Smetzky). Offenbachiana (Conradi). Popular Gramophone Music. Waltz, Dorfkinder (Kálmán). Selection from "Schön ist die Welt" (Lehár). March, Selection (Ciere). 4.40—8.40—VARA Programme.

4.40—*Pianoforte Recital* by Johan Jong. Miniatures (Scott). Lotus Land (Scott). Rustic Scenes (Moszkovsky). 5.10—Programme for Children.

5.40—*Orchestral Concert* conducted by Hugo de Groot. Suite, Joyous Youth (Coates). Variety Music on Gramophone Records. Overture, "The Caliph of Baghdad" (Boieldieu). Popular Gramophone Music. Ballet Music from "Faust" (Gounod).

7.20—Programme Notes. 7.40—Variety Music on Gramophone Records.

7.55—*Concert (continued)*. Overture, "The Force of Destiny" (Verdi). Rossini Potpourri (Tavan). Popular Gramophone Music. In the Sunny South—Negro Spiritual Potpourri (Bodewalt-Lamp). March, Hail to the Spirit of Liberty (Sousa).

8.40—11.25—VPRO Programme. 8.40—Religious Address.

9.10—*Recital* by Piet Lentz ('Cello) and Georges van Renesse (Pianoforte). Sonata in G Minor (Beethoven). Prelude in C Major (Bach). 9.40—Talk: Dante.

10.10—*Recital (continued)*. Sonata No. 2 (Pijpre). Sonata (Debussy).

10.40—Religious News. 10.45—News Bulletin. 10.55—Talk. 11.25—Variety Music on Gramophone Records. 12 *midnight*—VARA Programme. Variety Music on Gramophone Records. 12.40 *a.m.* (*Saturday*)—Close Down.

HUIZEN (Holland)

160 kc/s (1,875 m.); 8.5 kW.

Programme of the Christian Radio Society (N.C.R.V.).

8.40 *a.m.*—Bible Reading. 8.55—10.10—Gramophone Records of Variety Music. 11.10—Programme for Invalids. 11.40—Gramophone Records of Variety Music. 12.40 *p.m.*—Police Notes.

12.55—*Concert*. Soloists: M. N. Pielstroom (Baritone), H. Hermann (Violin), H. v. d. Horst ('Cello) and Mme. R. A. v. d. Horst-Bleekrode (Pianoforte). Overture, "Maritana" (Wallace). Hosanna (Granier). Les Rameaux (Fauré). Wie aan den Arme geeft leent aan God den Heer (Cooymans). Selection from "Samson and Delilah" (Saint-Saëns). Prelude (Lanchey). Ridonami la calma (Tosti). Ideale (Tosti). Charité (Mercier). Selection from "Tiefland" (d'Albert). Jonge liefde (Mann). Ons lied (v. Tetterode). In den vreemde (Verhulst). Myne Moedertaal (Brandts-Buys). Potpourri of Dutch Songs (v. Horst).

2.40—*Carillon Recital*. O Nederland let op U saek (Valerius). Merck toch hoe sterk (Traditional). Hollands Vlag (Wierts). Hy die geen liedje zingen kan (Hullebroeck). Speldewerksterslied (Hullebroeck). Minuet (Beethoven). Scherzo (Bielefeld). Sonatina No. 6 (Clementi). Marche funèbre (Vincent). Melody (Reissiger). Ave Maria (Schubert). Meiliedje (Vincent). Minuet (Beethoven). Zonnelied (v. Rennes). Al is ons Prinsje. Wilhelmus.

3.40—*Concert*. Mme. A. de Vink-Verschoor (Soprano), Caroline Gastendijk (Mezzo-Soprano), C. Rietveld (Violin) and Alex. Schellevis (Pianoforte). Sonata in C Minor (arr. Ferd. David). Selection. Ahnelle sorti umane (Händel). Singet dem Herrn (Buxtehude). Ich bin vergnugt in meinem Leiden (Bach). Dank sei Dir Herr (Händel). Liebliche Wälder (Händel). Per la Gloria (Buononcini). Sonata in C Major (Mozart). Selections (Schubert): (*a*) Frühlingstraum, (*b*) Ganymed, (*c*) Es mahnt der Wald, (*d*) Liebesbotschaft. Adagio (Haydn). Larghetto (Händel-Hubay). After Refrain (Kreisler). An die Freude (Mozart). Wie unglücklich bin ich (Mozart). O heiliges Band (Mozart). Klänge (Brahms). Ländliches Lied (Schumann). Sommernacht (Schulz). Rondino (Beethoven-Kreisler). Serenade (Lalo). Viennese Melody (Kreisler).

5.40—Talk for Philatelists. 6.10—Talk on Photography. 6.40—Talk. 7.10—Gramophone Records of Light Music. 7.20—Talk on Horticulture. 7.50—Propaganda Talk for Dutch Manufacturers. 8.10—Police Notes. 8.25—Gramophone Records of Light Music.

8.40—*Orchestral Concert*. Psalm 42 (E. Weiss). Looft den Heer (Steinbeek). Religious Song Potpourri (Schweinsberg). Deutsche Marsch-Perlen (Blankenburg). Overture, "Preciosa" (Weber). Waltz, Frühlingsstimmen (Joh. Strauss). 9.40—Recitation. 10.10—*Concert (continued)*. March, Princess Juliana (Bouwman). Myn Nederland. Aan myn Vaderland. Mooi Holland. Hou zee. Vlaggelied. Potpourri, Oud Holland (Schweinsberg). March, Queen Wilhelmina (Bouwman). March, Queen Emma (Bouwman). March, Prince Henry (Bouwman). Potpourri of Dutch Songs (Kessels). 10.40 (in the interval)—News.

11.25—Gramophone Records of Popular Music. 12.10 *a.m.* (*Saturday*)—Close Down.

KALUNDBORG (Denmark)

Kalundborg Radio. 260 kc/s (1,153 m.); 7.5 kW.

See *Copenhagen*.

KATOWICE (Poland)

734 kc/s (408 m.); 16 kW. Transmits at intervals from 11.58 a.m.

4.40—11.0 *p.m.*—See *Warsaw*. 11.0—Answers to Correspondents in French.

LAHTI (Finland)

167 kc/s (1,796 m.); 54 kW. Relayed by *Helsinki*, 815 kc/s (368.1 m.).

Transmits at intervals from 7.10 a.m.

6.15 *p.m.*—Pianoforte Recital from *Helsinki*. 6.40—Talk (to be announced). 7.5—Concert by the Station Orchestra. 8.0—Topical Talk. 8.20—Choral Concert by the Oratorio Choir. 8.45—News and Close Down.

LANGENBERG (Germany)

Westdeutscher Rundfunk. 635 kc/s (473 m.); 60 kW.

Transmits at intervals from 6.45 a.m. (Exercises, Weather, Time and Gramophone Concert).

11.10 *a.m.*—Gymnastics for Schools.

11.20—*English Conversation* for Schools. 11.45—Sponsored Programme. 12 *noon*—Concert from *Frankfurt*. 12.50 *p.m.*—Weather, Announcements and Time.

1.0—*Concert, conducted by Wolf*. March, Deutsch der Rhein (Pesch). Waltz from "Im Reiche des Indra" (Lincke). Italian Play Overture (Kéler-Béla). Mélancolie (Demaret). Waltz-Intermezzo, Ganz im Gehimen (Offermann). Symphonic Poem, Der Werwolf (Leuschner). Romance (Rubinstein). Fantasia, Grieg Reminiscences (Urbach). Romanian Folk Dances (Bartok).

2.30—Sponsored Gramophone Concert. 3.30—Economic Notes and Time Signal. 3.50—Programme for Children. 4.20—"*Fi-Di Wau*"—A Play for Children (Eugen Koller).

5.0—Orchestral Concert from the Works of Eugen D'Albert. Soloists: Kläre Hansen (Soprano), Josef Schömmer (Tenor), Hans Wocke (Baritone) and Franz Legrand (Tenor). Songs from "Tiefland": (*a*) First and Second Scene from the Prelude, for Two Tenors, (*b*) Baritone Solo: Tanzlied des Sebastiano, (*c*) Intermezzo, (*d*) Tenor Solo: Wolf's Narrative. Songs from "Die toten Augen": (*a*) Soprano Solo: Szene der Myrtocle, (*b*) Soprano and Baritone Duet: Final Duet. Overture, "Die Abreise."

6.15—Reading from "Familiar Letters on Chemistry (Justus von Liebig.)

6.40—Talk: Back to the Land? 7.0—Weather, Time, Economic Notes and Sports Results. 7.15—Three Germans converse with one another. 7.55—News Bulletin. 8.0—Talk by Kurt G. Sell: What People are talking about in America, relayed from *America*. 8.15—See Breslau. 9.30—Programme to be announced. 10.0—News Bulletin. 10.20—Concert of Light Music and Dance Music. 12 *midnight* (approx.)—Close Down.

LEIPZIG (Germany)

1,157 kc/s (259 m.); 2 kW. Relayed by *Dresden*, 941 kc/s (319 m.).
Transmits at intervals from 6.30 a.m.
4.30 *p.m.*—*Concert by the Leipzig Symphony Orchestra*, conducted by Hilmar Weber. Overture, "Loreley" (I. Lachner). Suite No. 4, after the Radio Music to Ibsen's "Emperor and Galilean" (Ambrosius). Ballet Music from "Ascanio" (Saint-Saëns). Minuet and Gavotte from "Ein Tanzspiel" (Schreker). Concert Waltz, Op. 47 (Glazounov). Festival March in E Flat Major, Op. 1 (R. Strauss).
5.30—Book Review. 5.50—Economic Notes, Weather and Time. 6.0—6.25—Interval. 6.25—*English Lesson.* 6.50—Talk (to be announced). 7.0—Talk: The Forming of Literary Taste.
7.30—*Zither Concert.* Waldfantasie (Seifert). Mazurka, Tautröpflern (Schulze). Bleameren von der Martinswand (Hoenes). March, Dem Banner treu (Zumpe).
8.0—Talk: What People are talking about in America, relayed from *America*. 8.15—Programme from *Breslau*. 9.30—Reading of Humorous Stories.
10.0—Jazz on Two Pianofortes by Heino and Volker Gaze. Get out and get under the Moon. Liebling ich hab' mir das so schön gedacht (O Gaze). Sam, the old Accordion Man. Wer weint heut' aus Liebe Tränen? (Kapcr-Jurmann). Singin' in the Rain. Sweet and Lovely. The Blue Room. Happy Feet from "The King of Jazz." 10.30—News Bulletin.
10.45 (approx.)—Concert of First Performances by the Leipzig Symphony Orchestra conducted by Theodor Blumer. Soloists: Dr. Ernst Latzko, Friedbert Sammler and Alfred Simon (Pianoforte). Kleine sinfonische Musik for Two Pianofortes and Six Wind Instruments (Johannes Müller): (*a*) Overture, (*b*) Andante, (*c*) Finale. Kleines Vorspiel, Op. 30, for String Orchestra and Trumpet (Rathaus). Music for Pianoforte and Orchestra (Pillney): (*a*) Toccata, (*b*) Aria No. 1, (*c*) Ragtime No. 1, (*d*) Aria No. 2, (*e*) Foxtrot, (*f*) Ragtime No. 2. 11.30 (approx.)—Close Down.

LJUBLJANA (Yugoslavia)

522 kc/s (574.7 m.); 2.5 kW.
Transmits at intervals from 11.30 a.m.
5.30 *p.m.*—Quintet Concert. 6.30—Programme for Women. 7.0—French Lesson. 7.30—Talk: "Volcanoes." 8.0—Lesson for Sokols. 10.30—Time Signal and News Bulletin.

LWÓW (Poland)

788 kc/s (381 m.); 16 kW.
Transmits at intervals from 11.45 a.m.
6.45 *p.m.*—Miscellaneous Items. 7.5—Violin Recital by Edmund Schildhorn. 7.30—See *Warsaw*. 7.35—Light Music on Gramophone Records. 8.0—See *Warsaw*. 12 *midnight* (approx.)—Close Down.

LYONS (France)

La Doua (PTT). 644 kc/s (465.8 m.); 1.5 kW.
Transmits at intervals from 8.0 a.m.
7.0 *p.m.*—*Popular Music on Gramophone Records*. Danse macabre (Saint-Saëns). Villanella (Dukas). Le Nil (Xavier Leroux). Selections from (*a*) "Countess Maritza" (Kálmán), (*b*) "Nina Rosa" (Romberg). Rose mousse (Bosc). Selection from "The Dollar Princess" (Fall).
7.30—Radio Gazette for Lyons and the South-East. 8.30—Literary Programme.

MADRID (Spain)

Union Radio (EAJ7). 707 kc/s (424.3 m.); 2 kW.
Transmits at intervals from 9.0 a.m.
8.0 *p.m.*—Chimes, Exchange, Market Prices and Request Gramophone Records. In the interval at 8.30—Talk. 9.15—News and Political Review. 9.30—10.30—Interval.
10.30—Chimes, Time, Political Review and *Symphony Concert on Gramophone Records*. Overture 1812 (Tchaikovsky). Andante from the Cassation (Mozart). La procesión del Rocío (Turina). Symphony No. 7 (Beethoven). Siegfried Idyll (Wagner). Rhapsody, España (Chabrier).
11.30—Dance Music Programme.
12.45 *a.m.* (*Saturday*)—News Bulletin. 1.0—Chimes and Close Down.

FRIDAY continued

MILAN (Italy)

Ente Italiano Audizioni Radiofoniche. 905 kc/s (331.5 m.); 7 kW. See *Turin*.

MORAVSKÁ-OSTRAVA (Czechoslovakia)

1,137 kc/s (263.8 m.); 11 kW.
Transmits at intervals from 10.20 a.m.
6.40 *p.m.*—Talk: "Pompeii." 7.0—See *Prague*. 10.15—Programme Announcements and Theatre Guide. 10.20—See *Prague*.

MOSCOW (Russia)

Trades Union. 230.1 kc/s (1,304 m.); 100 kW.
Transmits at intervals from 5.0 a.m.
4.0 *p.m.*—Proletariat Radio Journal. 5.0—Peasants' Radio Journal. 6.0—Programme to be announced.
8.0—Talk in French and German: Sowing Time in Socialist Countries.
9.55—Chimes and Close Down.

MUNICH (Germany

563 kc/s (533 m.); 1.5 kW. Relayed by *Augsburg* and *Kaiserslautern*, 536 kc/s (560 m.) and *Nürnberg*, 1,256 kc/s (239 m.).
Transmits at intervals from 6.45 a.m.
6.15 *p.m.*—Weather and Agricultural Report. 6.25—Talk: Music as an Expression of the Age. 6.45—Legal Talk. 7.5—Talk on Count Tilly, Leader of the Imperial Army in the Thirty Years War.
7.30—Dramatic Programme: (*a*) "*The Wolf in Sheep's Clothing*"—Peasant Comedy in One Act (Angermayer), (*b*) "*Rain in the Alps*"—Play with Music and Song (Hamik).
9.0—Orchestral Concert, conducted by Hans Winter. Soloist: Alice Ripper (Pianoforte). Comedy Overture (V. Waltershausen). Concerto in A Minor for Pianoforte and Orchestra (Grieg). Adagio and Scherzo from the Symphony in C Major (V. Bartels).
10.0—A Radio Report. 10.20—Time and News. 10.50—Talk by Kurt G. Sell: What People are talking about in America, relayed from *America*.

OSLO (Norway)

Kringkastingselskapet. 277 kc/s (1,083 m.); 60 kW. Relayed by *Fredriksstad*, 816 kc/s (367.6 m.); *Hamar*, 536 kc/s (560 m.); *Notodden*, 671 kc/s (447.1 m.); *Porsgrund* 662 kc/s (453.2 m.), and *Rjukan*, 671 kc/s (447.1 m.).
Transmits at intervals from 10.0 a.m.
6.0 *p.m.*—French Lesson. 6.30—'Cello Recital by Guillaume Hesse. Programme from the Works of Händel, Brustad, Kor Kuiler, Lalo and Tchaikovsky. 7.0—Announcements, Weather and News. 7.30—*English Lesson*. 8.0—Time Signal.
8.2—West Norwegian Programme, relayed from *Bergen*, 824 kc/s (364 m.). Talks, Selections by the Station Orchestra, Songs by Mme. Haldis Helen Nilsen (Soprano), and Selections on the Hardanger Fiddle.
9.0—Viola and Pianoforte Recital from the Works of Günther Raphael. Sonata in E Flat Major, Op. 13, for Viola and Pianoforte. Little Sonata No. 2, in F Major, Op. 35, for Pianoforte.
9.40—Weather and News. 10.0—Topical Talk. 10.15—Talk by Wilhelm Finden. 10.45 (approx.)—Close Down.

PALERMO (Italy)

Ente Italiano Audizioni Radiofoniche. 554 kc/s (542 m.); 3 kW.
Transmits at intervals from 12.45 p.m.
5.30 *p.m.*—Dance Music relayed from the Olympia Tearoom. 6.30—8.0—Interval. 8.0—News, Agricultural Notes, Report of the Royal Geographical Society and Giornale Radio.
8.20—Light Music on Gramophone Records. 8.30—Time Signal and News.
8.45—Variety Concert. Soloists: —Brunelli (Pianoforte), Aida Gonzaga (Soprano), E. Baudo (Guitar). Selection from "The Siege of Corinth" (Rossini). Pianoforte Solos: (*a*) Il Cuculo (Pasquini), (*b*) Largo and Gavotte (Zipoli), (*c*) Toccati (Paradisi). Soprano Solos: (*a*) Aria from "Don Pasquale" (Donazetti), (*b*) Aria from "Rigoletto" (Verdi). Guitar Solos: (*a*) Nocturne (Carosio), (*b*) Romance (Mertz). Talk by De Maria. Soprano Solos: (*a*) Song from "The Pearl Fishers" (Bizet), (*b*) Parla (Arditi). Guitar Solos: (*a*) Caprice (Navone), (*b*) Tarantella Siciliana (Calvaruso). Pianoforte Solos: (*a*) Elegy (Rachmaninoff), (*b*) Brazilian Impressions (Cantù), (*c*) Seguidillas (Albeniz). Overture, "Ruslan and Ludmilla" (Glinka). 10.55—News and Close Down.

PARIS (France)

Eiffel Tower (FLE). 207.5 kc/s (1,445.7 m.); 13 kW. Time Signals (on 2,650 m.) at 10.26 *a.m.* and 11.26 *p.m.* (preliminary and 6-dot Signals).
Transmits at intervals from 1.0 p.m.
6.45 *p.m.*—Talk on the Theatre. 7.0—Le Journal Parlé. 8.20—Weather Report.
8.30—*Symphony Concert*, conducted by Edouard Flament. Soloists: Ilona Dall (Songs), and M. Harsanyi (Pianoforte). Sarabande (Fèbvre-Longeray). Four Hungarian Songs (Kodaly). Sonata in F, Op. 8 (Grieg). Six Popular Hungarian Songs (arranged Béla Bartok). Selection from "La rôtisserie de la Reine Pédauque" (Levadé).
9.30—"Une soirée aux Folies-Montmartre"—Variety Programme.

PARIS (France)

Poste Parisien. 914 kc/s (328.2 m.); 1.2 kW.
Transmits at intervals from 12 noon.
6.45 *p.m.*—News and Announcements. 7.0—Gramophone Records, Talks and News.
7.30—*Concert by the Station Jazz Band*, conducted by M. Crickett Smith, with the collaboration of Miss Mabel Mercer. You forgot your Gloves (Lehak). A faded Summer Love (Baxter). Home (Van Steeden). When the Moon comes over the Mountains (Woods). I don't know why (Alhert). Sweet and Lovely (Tobais). Rhymes (Sarony). Romany Rose (Wayne). Siboney (Lecuona). Guilty (Kahn-Whiting). The Waltz you saved for

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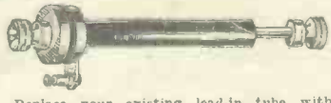

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FRIDAY
continued

me (Wayne-King). All of me (Simons). By the Sycamore Tree (Wendling).
3.30—Gramophone Records, Talk and News. 8.45—Concert of French Songs by Music Hall Artists. 10.45—News Bulletin. 10.50 (approx.)—Close Down.

PARIS (France)

Radio-Paris (CFR). 174 kc/s (1,725 m.); 75 kW.
6.45 *a.m.*—Physical Culture Course. 7.30—Weather Forecast and Physical Culture (contd.). 7.45—Light Music on Gramophone Records. 8.0—News, Weather Forecast and Press Review. 12 *noon*—Jewish Religious Address and Musical Programme.
12.30 *p.m.*—*Symphony Concert on Gramophone Records.* Concerto in G (Mozart). Symphony No. 8—the Unfinished (Schubert). Forest Murmurs from "Siegfried" (Wagner). Scherzo from "A Midsummer Night's Dream" (Mendelssohn). The Flight of the Bumble-Bee (Rimsky-Korsakov). Sur un vieil air (Bordes). La Mer (Debussy). In the intervals, at 1.0—Exchange Quotations, News and Weather, at 1.30—Exchange Quotations and at 2.0—Exchange Quotations and Announcements.
3.45—Exchange and Market Prices.
4.20—*Elementary English Lesson.*
4.45—Talk on the History of Music by Jean Chantavoine: *From Lalo to Saint-Saëns.* Aubade from "Le Roi d'Ys" (Lalo). Air from "Samson and Delilah" (Saint-Saëns). Septet with Trumpet (Saint-Saëns).
6.30—Market Prices, Weather Report, Agricultural Notes and Racing Results. 7.0—Talk: In Memory of the Great Geographer, Jean Brunhes. 7.25—Talk: Europe as seen from an Aeroplane. 7.45—Commercial Prices and News. 8.0—Light Music on Gramophone Records. 8.15—News and Weather Forecast. 8.25—Gastronomic Review.
8.30—"L'Arlésienne"—Play (Alphonse Daudet), Music by Bizet, relayed from the Odéon Theatre. In the interval, Press Review and News.

POZNAŃ (Poland)

896 kc/s (335 m.); 1.9 kW.
Transmits at intervals from 11.45 a.m. 6.50 *p.m.*—Miscellaneous Items and News. 7.15—See *Warsaw.* 7.30—Recitations. 8.0—10.45—See *Warsaw.* 10.45—Talk. 11.0—Dance Music from Café "Polonia." 12 *midnight* (approx.).—Close Down.

PRAGUE (Czechoslovakia)

614 kc/s (488.6 m.); 120 kW.
Transmits at intervals from 10.30 a.m. 4.0 *p.m.*—Orchestral Concert from *Brno.* 4.55—Talk. 5.5—Quartet Concert from *Brno.* 6.0—Agricultural Report. 6.10—Talk for Workers. 6.20—German Transmission: News. 6.30—Talk by W. L. Wiesner. 7.0—News Bulletin. 7.5—Talk by Professor Eduard Cmunt. 7.20—Popular Songs by Jiri Voldan. 8.0—Programme to be announced. 9.0—Time and News.
9.30—Dvorák Concert. Soloists: Richard Zika (Violin) and Professor E. Schulhoff (Pianoforte). Sonata in E Major, for Violin and Pianoforte. Ballad, Op. 15, for Violin and Pianoforte. Romantic Piece, Op. 75, No. 2.
10.0—Time and News. 10.15—Miscellaneous Announcements. 10.20—Popular Gramophone Music.

RADIO-SUISSE ROMANDE (SOTTENS) (Switzerland)

743 kc/s (403 m.); 25 kW.: *Lausanne,* 442 kc/s (680 m.); and *Geneva,* 395 kc/s (760 m.).
Transmits at intervals from 12.30 p.m.
4.31 *p.m.*—Orchestral Concert, conducted by Robert Echenard. 5.30 (from *Geneva*)—Programme for Women. 6.0—Light Music on Gramophone Records. 6.30 (from *Lausanne.* Talk (to be announced). 7.0—Weather Forecast. 7.1 (from *Lausanne*) — Popular Music on Gramophone Records. 7.30 (from *Lausanne*)—Theatre Notes. 7.55—Announcements. 8.0 (from *Geneva*)—Talk: The Work of the Disarmament Conference.
8.10 (from *Geneva*)—Recital of French Music by Mme. Cheridjan-Charrey (Pianoforte), and André Pascal (Violin). 8.50 (from *Lausanne*)—Dramatic Programme by the "Compagnons du Masque." 9.30 (from *Lausanne*)—Recital of Popular Swiss Songs by William Charbonnier, accompanied by Edith Burger-Gisiger. 10.0—Weather and News. 10.15 (approx.)—Close Down.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche. (1RO). 680 kc/s (441 m.); 50 kW. Relayed by *Naples,* 941 kc/s (319 m.) and 2RO, 11,810 kc/s (25.4 m.)
Transmits at intervals from 8.15 a.m. (Giornale Radio).
12 *noon*—Gramophone Records of Variety Music. 12.35 *p.m.*—Weather Forecast.
12.45—2.0—*Vocal and Instrumental Concert.* Old and Modern Italian Melodies by Gina Menini (Soprano). Violin Solos: (*a*) Souvenir de Moscou (Wieniavsky), (*b*) Barcarolle (Spohr), (*c*) Tarantella (Favilli). Scandinavian Suite (Frederiksen). Gipsy Romance (Boldi). In Morocco (Maraziti). Selection from "The Circus Princess" (Kálmán). Primavera (Nucci). In the intervals: Giornale Radio, Exchange, Time and Announcements.
4.45 (from *Naples*)—Talk for Women.
5.0—Exchange, Programme for Children, Giornale Radio and Announcements.
5.30—*Song Recital* by Ofelia Parisini (Soprano). Aria from "The Girl of the Golden West" (Puccini). Arioso from Act IV of "La Wally" (Catalani). Song from "Il piccolo Marat" (Mascagni). Luna d'estate (Tosti).
5.45—*Variety Concert.* Waltz (Waldteufel). Selection (Uhl). Intermezzo, In the Shadows (Finck). Selection. Gipsy Waltz (Dequin). The Peanut Vendor (Simons).
6.15—Giornale dell'Erit. 6.55 (from *Naples*)—Shipping and Sports Notes.
7.0—Agricultural Notes, Weather, Announcements, Giornale Radio and Press Review. 7.50—Gramophone Records of Variety Music. 8.0—Time, Announcements and Report of the Royal Geographical Society in Italian, French, *English,* German and Spanish. 8.30—Sports Notes and Announcements.
8.45—"Les Cloches de Corneville"—Operetta in Three Acts (Planquette). In the intervals: Talk on Literature and Art, Topical Talk and News.

SCHENECTADY (U.S.A.)

General Electric Company (WGY). 790 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,530 kc/s (31.48 m.), and by W2XAD on 15,340 kc/s (19.56 m.).
Transmits at intervals from 11.45 a.m.
8.30 *p.m.*—Woman's Radio Review from *New York.* 9.0—Decorating Notes from *New York.* 9.15—Old Time Tunester. 9.30—Wrigley Programme from *New York.* 9.45—Musical Ad Men. 9.55—News Items. 10.0—Stock Reports and Police Notices. 10.15—Skippy from *New York.* 10.30—New York State Department Talk. 10.40—Ollie Yettru (Pianoforte). 10.45—Musical Programme. 11.0—All Saints Cathedral Programme. 11.30—With Gray McClintock in the Canadian North-West. 11.45—Silver Streaks. 12 *midnight* (WGY only)—General Electric Programme. 12 *midnight* (W2XAF only)—Stock Reports and News Items:
12.15 *a.m.* (*Saturday*)—Musical Programme from *New York.* 12.30—Prince Albert Quarter Hour from *New York.* 12.45—Trials of the Goldbergs from *New York.* 1.0 (WGY only)—Cities Service Programme from *New York.* 1.0 (W2XAF only)—International General Electric Programme. 1.30—WGY Agricultural Programme.
2.0—4.0—*New York* Relay. 2.0—Clicquot Club Eskimos. 2.30—Pond's Programme. 3.0—Sampler Orchestra. 3.30—RKO Programme. 4.0—Freddy Engel's Orchestra. 4.30—DeWitt Clinton and his Orchestra. 5.0—Ralph Kirbery, Dream Singer, from *New York.* 5.5—Hotel New Yorker Orchestra from *New York.* 5.30—New Kenmore Orchestra. 6.0 (approx.)—Close Down.

SCHWEIZERISCHER LANDESSENDER (BERO-MÜNSTER) (Switzerland)

653 kc/s (459 m.); 60 kW.; *Basle,* 1,229 kc/s (244.1 m.); and *Berne,* 1,220 kc/s (246 m.).
12.28 *p.m.*—Time Signal from the *Neuchâtel* Observatory. 12.30—Weather and News. 12.40—Concert by the Station Orchestra. 1.35—Weather Report and Exchange Quotations. 1.45—3.30—Interval.
3.30—Concert by the Station Orchestra. 4.0 (from *Basle*)—Concert by the Station Quartet. 5.0 (from *Basle*)—Programme for Women. 5.30—Weather Report and Market Prices.
5.45—6.30—Interval. 6.30—Symphonic Jazz on Gramophone Records.
7.0 (from *Basle*)—Elementary Italian Lesson. 7.20—Sports Forecast.
7.28—Time Signal and Weather Report. 7.35 (from *Basle*)—Anecdotes and Sayings of Famous Painters, by Willi Wenk.
8.0 (from Berne)—Concert of Rudolf Maria Holzapel's Works, by the Loeffler Quartet. 8.45 (from *Zürich*—"*The Schinderhannes Case*"—Radio Play (Curt Elwenspoek).
10.0—Weather Report, News and Tourist Report. 10.15 (approx.)—Close Down.

STOCKHOLM (Sweden)

Radiotjänst (SASA). 689 kc/s (436 m.); 55 kW. Relayed by *Boden,* 244 kc/s (1,229.5 m.); *Göteborg,* 932 kc/s (322 m.); *Hörby,* 1,166 kc/s (257 m.); *Motala,* 222.5 kc/s (1,348 m.); *Östersund,* 389 kc/s (770 m.), and *Surdsvall,* 554 kc/s (542 m.).
Transmits at intervals from 7.20 a.m. (Gymnastics and Service).
5.0 *p.m.*—Programme for Boy Scouts.
5.30—Reading.
5.45—*Concert.* Petite Suite No. 1 (de Micheli). Waltz (Fahrbach). Spanish Dance No. 8 (Sarasate). Selection from "Martha" (Flotow). Tango, Sagen Sie doch bitte "Du" Madame (Dreyer). Selection from "The Circus Princess" (Kálmán).
6.45—Agricultural Report. 7.0—Gardening Talk. 7.15—Weather and News. 7.30—Talk: Olympia and the Olympic Games in the Time of the Ancients. 8.0—West Norwegian Programme of Talks and Music relayed from *Bergen,* 824 kc/s (364 m.).
9.0—Violin Recital by Bronislaw Gimpel, relayed from *Göteborg.* Rondo (Mozart-Kreisler). Fugue in A Minor (Tartini-Kreisler). Prelude and Allegro (Pugnani-Kreisler). Sonatina No. 6 (Paganini). Spanish Dance, Malaguena (Sarasate). Introduction and Tarantella (Sarasate).
9.25—*Pianoforte Recital* by Yngve Flyckt. Toccata in C Sharp Minor (Heintze). Four Sketches (Björkander). Prelude in C Sharp Minor (Rangström).
9.45—Weather and News. 10.0—Popular Gramophone Music. 11.0 (approx.)—Close Down.

STRASBOURG (France)

Radio-Strasbourg (PTT). 869 kc/s (345 m.); 11.5 kW.
11.30 *a.m.*—*Gramophone Concert.* Selections from "Lohengrin" (Wagner). Selection from "Frederica" (Lehár). Chanson des yeux clos (de Buxeuil). Yeux de rêve (de Buxeuil). Le Tasse (Godard). Selection from "The Queen of Sheba" (Gounod). Rédemption (Franck). Serenade (Heykens). Velvet and Silk (Ziehrer). Tonischka (Pollet).
12.45 *p.m.*—News in French and German. 1.0—Time Signal.
1.1—*Gramophone Concert.* Twenty-Fourth Paganini Caprice (Herman). Scherzo (Dittersdorf). Tambourin (Gossec). Die Biene (Schubert). Selection. Fremito d'amore (Barbirolli). Suite, Mother Goose (Ravel). Hungarian Dances (Brahms). Blue Waltz (Margis). Waltz, Etincelles (Waldteufel). Valse caprice (Bazin). Si mes vers avaient des ailes (Hahn). Selection from "Sous les toits de Paris" (Moretti).
4.45—Literary Talk in French.
5.0—*Dance Music.* Foxtrot, April. Slow Foxtrot, My Sorrow. Tango, Primer amor. Foxtrot, Lo and behold. Rain on the Roof. Waltz, Wiener Blut (Johann Strauss). Foxtrot, Snap it. Slow Foxtrot, Dreamy and blue. Pardon (Hage). Foxtrot, Mona Lisa. Slow Foxtrot, You're blasé. Waltz, My Song of the Nile. Wouldn't it be Wonderful? Tango, Adios. The Queen was in the Parlour. You used to be my Sweetheart. Paso doble, Micaëla.
6.0—Topical Talk in German. 6.15—Legal Talk in German.
6.30—*Gramophone Concert.* Canzonetta (d'Ambrosio). Melody (Gluck-Kreisler). Intermezzo, Narcissus (Nevin). Russian Song, Troika (Nevin). Selection from "Schwanda the Piper" (Weinberger). Invocation (Gounod). Selection from "La Belle Hélène" (Offenbach). Offenbach Potpourri. Foxtrot, Making Whoopee. Song of the Sands.
7.30—Time Signal. 7.31—News in French and German.
7.45—*Gramophone Concert.* Selection from "La Princess jaune" (Saint-Saëns). Selection from "The Daughter of the Regiment" (Donizetti). Nocturne (Franck). Procession (Franck). Selection from "Boris Godounov" (Moussorgsky). Two Selections (Fomine). Song from "Fortunio" (Messager). Intermezzo from "L'Arlésienne" (Bizet). A la pâtisserie du coin (Chepfer). Robe de noce (Chepfer). Waltz (Vacher). Tintin (Peyronnin).
8.30—Chamber Music Concert. Soloists: Daniel Herman (Violin) and M. Hastin (Songs). String Sextet (Brahms). Songs from "L'horizon chimérique" (Fauré). Sonata for 'Cello and Pianoforte (Monché). Songs: (*a*) Double amour (Ronché), (*b*) L'Echo (Monché). Octet for Strings (Svendsen). 10.30 (approx.)—Close Down.

STUTTGART (MÜHLACKER) (Germany)

Süddeutscher Rundfunk. 832 kc/s (360.5 m.); 60 kW. Relayed by *Freiburg,* 527 kc/s (570 m.).
Transmits at intervals from 6.0 a.m. (Time, Weather and Gymnastics).
10.0 *a.m.*—Gramophone Concert from the Works of Beethoven and Schubert. 11.0—News Bulletin. 11.15—Advertising Announcements. 11.30—Sponsored Concert. 12 *noon*—Concert from *Frankfurt.* 12.50 *p.m.*—Time and News. 1.0—Gramophone Concert—Mozart, Grieg, Verdi and Puccini Potpourris. 1.55—News Bulletin. 2.0—Sponsored Gramophone Records. 2.30—*Advanced English Lesson.* 3.0—4.30—Interval. 4.30 (from *Freiburg*)—Talk: Welfare Work.
5.0—Concert from *Langenberg.* 6.15—Time and Agricultural Report.
6.25—Talk: Modern Alsatian Literature. 6.50—Talk for Doctors. 7.15—Time, Weather and Programme Announcements in Esperanto. 7.30—Humorous Swabian Programme with Recitations from the Works of August Reiff and Selections by the Kromer Sextet. 7.45—Topical Talk.
8.0—**Grand Concert by Various Orchestras relayed from the Leiderhalle.** *Part I. A Stuttgart Orchestra, conducted by Arthur Haelssig.* Italian Caprice (Tchaikovsky). Tales from the Vienna Woods (Joh. Strauss). Dance Music. Intermezzo, Der Frühling (Koch). March, Durch Kampf zum Sieg (Blon). *Part II.* Selections by the Singing Babies. *Part III.* Dajos Bela and his Orchestra.
10.20—News Bulletin.
10.45—See **Frankfurt.** 12 *midnight* (approx.)—Close Down.

TOULOUSE (France)

Radiophonie du Midi. 779 kc/s (385 m.); 8 kW.
Transmits at intervals from 12.45 p.m.
5.0 *p.m.*—Picture Transmission. 5.15—Light Music. 5.30—News Bulletin.
5.45—*Operetta Music.* Selection from "The Czardas Princess" (Kálmán). Selection from "The Merry Widow" (Lehár). Selection from "Frederica" (Lehár). 6.0—Popular Songs.
6.15—Military Music. 6.30—News and Exchange.
6.45—*Orchestral Music.* Historic March (Kaiser). Paysage suisse (Heusser). 7.0—Sound Film Music.
7.15—Light Music. 7.30—News and Racing Results. 7.45—Selections by an Argentine Orchestra. 8.0—*Operetta Music.* Selections from "Der Orloff" (Granichstaedten). Selections from "A Waltz Dream" (O. Straus). 8.15—Popular Music.
8.30—*Viennese Concert.* Potpourri (Jessel). Waltz, from "The Bird Fancier" (Zeller). A Kiss (Eysler). Glow-Worm Gavotte (Lincke). Cocorico (Ganne). Spring Song (Sibelius).
9.0—Concert relayed from the Café des Américains. 10.30 (in the interval)—News. 11.0—Selections from "Frederica" (Lehár) and "Gillette de Narbonne" (Audran). 11.15—North African News.
11.30—*Orchestral Selections.* Eine kleine Nachtmusik (Mozart). Overture, Leonora (Beethoven). 12 *midnight*—Weather, Announcements and Close Down.

TRIESTE (Italy)

Ente Italiano Audizioni Radiofoniche. 1,211 kc/s (247.7 m.); 10 kW.
Transmits at intervals from 8.15 a.m.
7.10 *p.m.*—*Quintet Concert.* Mabel (Vidale). Selections (Eysler). Selection (Noack). Im Schönbrunn (Benatzky). Selection from "La Governatrice" (Italos). Ricordo d'inverno (Nucci). Universal (Appollonio).
8.0 till Close Down—See *Turin.*

TURIN (Italy)

Ente Italiano Audizioni Radiofoniche. 1,096 kc/s (273.7 m.); 7 kW. Relayed by *Milan,* 905 kc/s (331.5 m.), and *Genoa,* 959 kc/s (312.8 m.).
Transmits at intervals from 8.15 a.m.
7.10 *p.m.*—*Programme of Light Music.* Comic Overture (Keler-Belá). Selection from "I Promessi Sposi" (Ponchielli). Korka (Culotta). Tarantella d'Amalfi (Nardi).
7.30—Time Signal and Programme Announcements. 8.0—Giornale Radio, Weather Bulletin and Talk, followed by Gramophone Records. 8.55—Wireless Notes. 9.0—Variety Programme. In the Intervals, Talks. 11.0—Giornale Radio.

VIENNA (Austria)

Radio-Wien. 581 kc/s (517 m.); 15 kW. Relayed by *Graz,* 852 kc/s (352.1 m.); *Innsbruck,* 1,058 kc/s (283 m.); *Klagenfurt,* 662 kc/s (453.2 m.); *Linz),* 1,220 kc/s (246 m.) and *Salzburg,* 1,373 kc/s (218 m.).
Transmits at intervals from 9.20 a.m.
6.15 *p.m.*—Report on Travel and Tourist Traffic. 6.30—Talk: The Davis Cup. 6.45—Weekly Report on Physical Culture 6.55—Talk: The Kite and the Heron. 7.20—Humorous Programme. 7.50—Time Signal, Weather Report and Programme Announcements. 8.0—Talk by Kurt G. Sell: What People are talking about in America, relayed from *America.*
8.15—See **Breslau.** 9.30—"The Voices of the Nations in Drama"—a New Cycle in the Burgtheater. Director: Hermann Röbbeling. 9.35—News, Weather Report and Announcements. 9.50—An Experimental Musical Programme.
10.20—**Concert by the Karl Pauspertl Orchestra.** Jubel-Ouvertüre (Flotow). Waltz, Märchenbilder (Pauspertl). Selection from "Madame Butterfly" (Puccini). Polka Mazurka (Ziehrer). Selection from "The Merry Widow" (Lehar). Viennese Song, Das Glück is a Vogerl (Kratzl). Potpourri of Viennese Songs (Drescher) March, Die Regimentskinder (Fucik).

WARSAW (Poland)

Polskie Radio. 212.5 kc/s (1,411 m.); 120 kW.
11.20 *a.m.*—Aviation Weather Report. 11.25—Interval. 11.45—Press Review. 11.58—Time Signal, and Bugle Call from the Tower of St. Mary's Church, *Cracow.*
12.5 *p.m.*—Programme Announcements. 12.10—Light Music on Gramophone Records. 1.20—Weather Report. 1.25—Interval.
1.35—Light Music on Gramophone Records. 1.55—Interval. 2.45—Popular Music on Gramophone Records. 3.5—Economic Report and Exchange Quotations. 3.15—Report of a Polish Musical Association. 3.20—Interval. 3.25—Talk on History.
3.45—Hydrographic Report. 3.50—Talk on History. 4.10—Popular Music on Gramophone Records.
4.20—Answers to Correspondence.
4.40—Light Music on Gramophone Records. 4.55—*Linguaphone English Lesson.* 5.10—Talk: Sigismond Krasinsky, on the 120th Anniversary of his Birth, relayed from *Lwów.*
5.35—*Concert by a Wind Instrument Orchestra,* conducted by André Bromke. Overture, "The Thieving Magpie" (Rossini). Waltz, Wine, Woman and Song (Johann Strauss). Cracovienne fantastique (Paderevsky). Selections from "Il Trovatore" (Verdi). Peer Gynt Suite, No. 1 (Grieg). Couiavienne (Novoviejsky).
6.50—Miscellaneous Items. 6.55—Foreign Agricultural Press Review, relayed from *Wilno,* 533 kc/s (563 m.).
7.5—Programme Announcements.
7.10—Sports Notes. 7.15—Radio Journal. 7.30—Japanese National Programme. 8.0—Talk on Music.
8.15—**Symphony Concert by the Warsaw Philharmonic Orchestra** and Choirs, conducted by W. Bardjajev. Soloists: S. Argasinska (Soprano), E. Feuermann ('Cello), M. Janovsky (Tenor), and Alex. Michalovsky (Bass). "*Lot*"—Oratorio for Mixed Choir and Soloist (Kazuro). Concerto for 'Cello and Orchestra (Haydn). Short Pieces for 'Cello. In the interval, Talk: Forgotten Books.
10.40—Radio Journal. 10.45—Weather and Police Notes. 10.50—Dance Music relayed from the Café Adria. 12 *midnight* (approx.)—Close Down.

WILNO (Poland)

533 kc/s (563 m.); 16 kW.
Transmits at intervals from 11.58 a.m.
6.50 *p.m.*—Social Work Review. 7.0—Programme for Poles in Lithuania.
7.15—Agricultural Report. 7.25—Humorous Programme. 7.40—Programme Announcements. 7.45—Japanese Programme from *Warsaw.*
12 *midnight* (approx).—Close Down.

SATURDAY (April 30)

PRINCIPAL EVENTS

SYMPHONY CONCERTS

8.0 p.m. Brussels No. 1 and No. 2: Conducted by Philippe Gaubert.
9.0 ,, Italian Stations (Northern).

CONCERTS (Vocal and Instrumental)

3.55 p.m. Hilversum: Amsterdam Orchestra.
5.0 ,, Brussels No. 1: Conducted by Philippe Gaubert (gram.).
5.55 ,, Hamburg: Adolf Klages programme.
8.0 ,, Munich: Light music.
8.0 ,, Schweizerischer Landessender: Popular.
8.0 ,, Vienna, Berlin (Witzleben): Light orchestral music.
8.40 ,, Huizen: Popular.

OPERAS AND OPERETTAS

8.30 p.m. Strasbourg: "Paganini" (Lehár).
8.45 ,, Palermo: "La Casa innamorata" (Lombardo).
8.45 ,, (approx.) Rome: Opera relay.

CHAMBER MUSIC

7.5 p.m. Heilsberg: Italian programme.

PLAY

7.45 p.m. Frankfurt, Stuttgart: "Colonel Lawrence."

MISCELLANEOUS

8.0 p.m. Langenberg: Variety.
8.0 ,, Leipzig: Cabaret.
8.30 ,, Frankfurt, Stuttgart: Variety, relayed from Wiesbaden.
8.45 ,, Radio-Paris: Revue.
9.0 ,, Stockholm: Students' Festival.
10.30 ,, Hamburg, Heilsberg, Königs Wusterhausen: "Walpurgis Night on the Brocken."
11.40 ,, Radio-Suisse Romande: Russian Easter Mass.

DANCE MUSIC

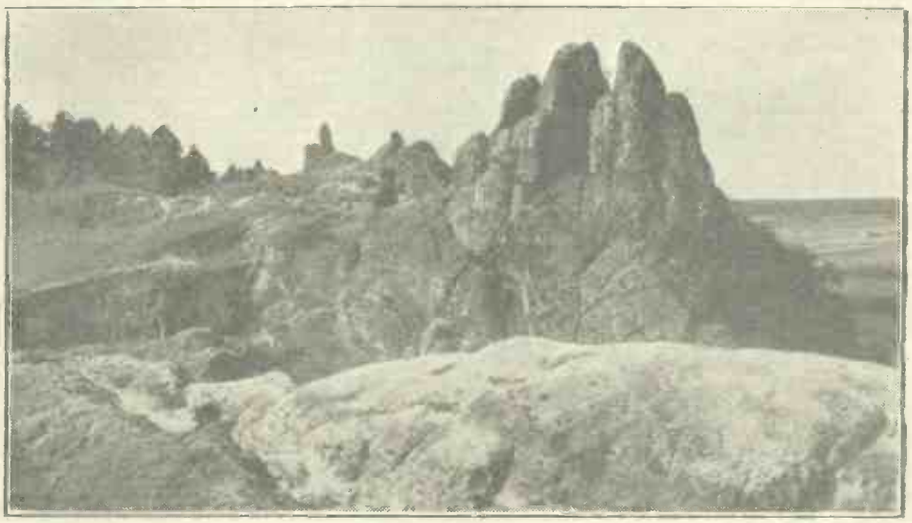
9.50 p.m. (app.) Berlin (Witzleben), (10.30) Breslau.
10.30 ,, Strasbourg: (till 12).
10.45 ,, Copenhagen: (till 12.15).

Walpurgis Night

Time was when stout Teutons worshipped Wodan and Freia and the other German gods. On the night of nights when spring overcomes winter they used to go out to the Brocken, the highest mountain in he Harz, to celebrate. The Christians did all they could to prevent them; they even sent out soldiers to drive the worshippers away. But to no avail. The cunning heathens slowly began to weave stories of mystery around their meeting-places. And thus Walpurgisnacht and the Brocken became associated with witches, and in fact the witches' grandmother, Watelinde, was said to attract lovely innocent girls and tu n them into ugly hags. Naturally nobody dared go near those places after dark. Readers, however, who wish to see the witches for themselves have only to set two ploughs crosswise on that dread night, and sit beneath them. HAMBURG station is to stage a broadcast of the eerie revels to-night.

M. Philippe Gaubert

A distinguished member of the Paris Conservatoire is visiting the royal sister school at Brussels this evening to conduct a programme of French music. M. Gaubert is a professor in Paris, conductor of the Conservatoire concerts, and first conductor of the Opéra. He has, however, found time to produce a good deal of music of real importance, and his programme to-night, to be broadcast by both BRUSSELS stations, includes his triptych *Chants de la Mer*, a work of noble inspiration which has already been warmly welcomed at the Colonne, Poulet, and Conservatoire concerts.



[By courtesy of the German Railways Bureau.

The Devil's Wall in the Harz Mountains

NATIONAL

	kc/s.	m.	kW.
London:	1,148	261.3	50
Daventry:	193	1,554.4	30
Northern:	995	301.5	50

10.15 *a.m.*—The Daily Service.
10.30—Time Signal (Greenwich); Shipping Forecast.
10.45—11.0—"What's in the Papers?"
12 *noon*—The Northern Studio Orchestra, directed by John Bridge.
12.45 *p.m.*—Reginald New, at the Organ.
1.0—Time Signal (Greenwich).
1.30—2.30—The Commodore Grand Orchestra, directed by Joseph Muscant.
3.30—The J. H. Squire Celeste Octet. Trevor Owen (Tenor).
4.45—Time Signal (Greenwich).
4.45—Reginald Foort, at the Organ.
5.15 (Daventry)—The Children's Hour.
5.15 (London and Northern)—The B.B.C. Dance Orchestra.
6.0—"The First News."
6.25—Interval.
6.30—Time Signal (Greenwich).
6.30—Saturday Sports Talk.
6.45 (Daventry)—Egwyl Gymraeg. (West Regional Programme.)
6.45 (London and Northern)—A Recital by Eileen Pilcher (Contralto).
7.5—7.25—"The Common Earth"—IX. Mr. E. L. Grant Watson.
7.30—Colin Wark presents Troise and the Mandoliers, with Don Carlos (Vocalist).
8.0—From Tibet to Timbuctoo. A Vaudeville Programme announced by Announcers from all parts of the world, not excluding Ffillk-click-aaffs-click-zzz-click, right from the heart of the Jungle. Leonard Henry (Comedian), Ernest Sefton and Betty le Brock. The B.B.C. Theatre Orchestra.
9.0—Time Signal (Greenwich).
9.0—"The Second News."
9.15—Shipping Forecast; New York Stock Market Report.
9.20—"On the 9.20"—XVI. "Conversations in the Train."
9.40—An Orchestral Concert. Parry Jones (Tenor). The B.B.C. Orchestra (Section D). Conducted by Joseph Lewis.
10.40—12 *midnight*—Dance Music.
11.30—Time Signal (Greenwich).

REGIONAL

	kc/s	m.	kW.
London:	842	356.3	50
Midland:	752	398.9	25
Northern:	626	479.2	50

10.15 *a.m.* (London and Northern)—The Daily Service.
10.30—11.0 (London and Northern)—Daventry National Programme.
12 *noon* (London and Northern)—The Northern Studio Orchestra.
12.45 *p.m.* (London and Northern)—Daventry National Programme.
1.30—2.30 (London and Northern)—The Commodore Grand Orchestra.
3.30 (London and Northern)—The J. H. Squire Celeste Octet. Trevor Owen (Tenor).
3.30 (Midland)—Dance Music. Billy Merrin and his Commanders.
4.45—Daventry National Programme.
5.15—The Children's Hour.
6.0—"The First News."
6.30 (Northern and London)—A Brass Band Concert. Baxendale's (Manchester) Works Band, conducted by F. Greenfield. Fred Sutcliffe (Baritone).
6.30 (Midland)—Midland Towns and Cities—X. Wolverhampton; a Programme of Music from St. Peter's Collegiate Church, Wolverhampton, followed by an Orchestral Concert.
7.30 (London)—Essex Musical Association. Twenty-First Birthday Festival Concert. Margaret Elwes. Keith Falkner. Combined Choirs and Orchestra, conducted by Adrian Boult.
7.30—8.35 (Northern)—The Mining Areas Choral Festival. "Samson" (Händel).
8.15 (London)—A Recital by Arnold Trowell (Violoncello).
8.40—Speeches following the Royal Academy Banquet, relayed from Burlington House. In the Chair: Sir William Llewellyn, G.C.V.O., President of the Royal Academy. Guest of Honour: H.R.H. Prince George, K.G.
10.0—"The Second News."
10.20 (Midland)—Experimental Transmission by the Fultograph Process.
10.25—11.0 (Midland)—As London.
10.25—12.0 *midnight* (London and Northern)—Dance Music.

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)

825.3 kc/s (363.3 m.); 13 kW.
Transmits at intervals from 12.30 p.m.
7.0 *p.m.*—Concert of Dance Music. 7.20—Financial Notes. 7.35—Shipping Report and Weather Forecast. 7.40—Chansonettes. 7.55—News and Time Signal. 8.0—Selection from "Le Pré aux Clercs" (Hérold). 8.20—Instrumental Ensembles.
8.30—*Request Concert of Gramophone Records.* Rose Mousse (Bosc). Une Réunion Electorale (Quinel). Il faut encore (Moretti). Jana (Amadei). Selections from "La Traviata" (Verdi), and "Hérodiade" (Massenet). Serenade (Schubert). Je t'ai donné mon Coeur. Fille d'Espagne (Evain). Selection from "Carmen" (Bizet). The Peanut Vendor (Simons). Selection from "La Mascotte" (Audran). Selection (Lespine). Selection from "Lilac Time" (Schubert-Berté). Le Portrait de Mireille (Doria). Selection (Soler). Lehár Potpourri. N'te marie pas (Scotto). Sur la Terre (Moretti).

BARCELONA (Spain)

Radio-Barcelona. (EAJ1). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 8.30 a.m.
7.0 *p.m.*—Programme for Children.
8.0—*Concert by the Station Trio.* Cordoba (Fusté). Selection from "La Villana" (Vives). Valgame Dios de los Cielos (Mariani). Puerta de Tierra (Albeniz).
8.30—Exchange Quotations. 8.35—*Elementary English Lesson.* 9.0—Request Concert on Gramophone Records and News Bulletin. 10.0—Chimes, Weather Forecast and Market Prices. 10.15—Selections by the Station Orchestra. 10.30—See *Madrid.*

BELGRADE (Yugoslavia)

697 kc/s (430.4 m.); 2.5 kW.
Transmits at intervals from 11.15 a.m.
7.30 *p.m.*—Talk (to be announced). 8.0—Choral Concert of Sacred Music, relayed from a Church. 9.0—News Bulletin. 12 *midnight*—Resurrection Service relayed from the Russian Church.

BERLIN (Germany)

Königs Wusterhausen. 183.5 kc/s (1,635 m.); 60 kW.
Transmits at intervals from 5.45 a.m.
12 *noon*—Weather for Farmers, followed by Gramophone Concert of Operetta Music and Weather Forecast. 12.55 *p.m.*—Nauen Time Signal. 1.30—News Bulletin. 2.0—Gramophone Concert from *Berlin (Witzleben).* 2.50—Handwork for Children. 3.30—Weather and Exchange. 3.45—Talk for Women. 4.0—Talk: Economic Importance of the Baltic Countries.
4.30—Concert from *Berlin (Witzleben).* 5.30—Health Talk. 5.50—Wireless Technical Notes. 6.5—Dialogue on Opera. 6.30—See *Heilsberg.* 6.55—German Lesson. 7.15—*Elementary English Lesson.* 7.35—"The Quiet Hour." 8.0—Weather for Farmers. 8.2—Variety Programme from *Langenberg*, followed by News.
10.30—See Hamburg. 12.30 *a.m. (Sunday)*—Close Down.

BERLIN (Germany)

Witzleben. 715 kc/s (419.5 m.); 1.5 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics and Gramophone Concert).
4.5 *p.m.*—*Wind-Instrument Concert.* Entry March of the Boyards (Halvorsen). Overture, "Masaniello" (Auber). Dance from "Ziethensche Husaren" (B. Scholz). March from "Der Freikorporal" (Vollerthun, arr. A. Becker). Selections (Latann): (*a*) Souvenir de Belle-Alliance, (*b*) March, Admiral Stosch. Overture, "William Tell" (Rossini). Die Fürstensteiner—Tone Picture in Waltz Form (Bilse). March, Sachsentreue (Schmidt). Selection from "Oberon" (Weber). Waltz, Mein Lebenslauf ist Lieb und Lust (Jos. Strauss). Selections (Becker): (*a*) Maxim March after Holländer's "Die Herren von Maxim," (*b*) March, Maikäfer. In the interval, Film Notes.
6.0—The Narrative of the Week. 6.25—The Interview of the Week. 6.45—Talk: The Breeding of Animals. 6.55—The Witzleben Station informs its Listeners . . ." 7.0—Topical Talk.
7.10—Chamber Music. Quartet in A Minor, Op. 65 (Graener). Quartet in A Minor, Op. 37 (Karl Bleyle).
7.50—Sven Schacht reads from his own Works.
8.0—Concert from Vienna. 9.45—Weather and News. 9.50 (approx.)—Dance Music. 1.0 *a.m. (Sunday)*—Close Down.

BORDEAUX-LAFAYETTE (France)

(PTT). 986 kc/s (304 m.); 13 kW.
Transmits at intervals from 12.45 p.m.
6.30 *p.m.*—Radio Journal. 8.0—Announcements and Exchange, followed by Lottery Results. 8.5—Sports Notes. 8.10—*Advanced English Lesson.* 8.25—News and Weather Forecast.
8.30—*Concert of Popular Music on Gramophone Records.* Two Spanish Dances (Moszkovsky-Scharwenka). Granada Cataluna (Albeniz-Nemeti). Two Selections (Fernand): (*a*) La Ballade de l'Aveugle, and (*b*) The Spring. Second Waltz (Weber-Burmester). Danse antique (Dussek-Burmester). Il pleut dans mon cœur (Debussy). Si mes vers avaient des ailes (Hahn).
9.0—"*Harnali*"—Parody in Four Scenes in Verse (Auguste de Lauzanne), followed by "*Le Stradivarius*"—Comedy in One Act (Max Maurey). After the Programme, Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)

1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 10.30 a.m.
6.40 *p.m.*—Talk for Housewives. 7.0—See *Prague.* 7.55—Talk on Slovak Folklore. 8.55—See *Prague.* 10.20—Programme Announcements and News. 10.25—See *Moravská Ostrava.*

BRESLAU (Germany)

923 kc/s (325 m.); 1.5 kW. Relayed by *Gleiwitz*, 1,184 kc/s (253 m.).
Transmits at intervals from 6.30 a.m
4.30 *p.m.*—*Concert of Favourite Waltzes and Marches*, by the Station Orchestra, conducted by Franz Marszalek. March (Karl). Waltz, Fideles Wien (Komzak). Gladiator's Farewell (Blankenburg). Waltz, Sobre las Olas (Rosas). March, Heil Europa (Blon). Waltz, Künstlerleben (Johann Strauss). March (Fucik). Waltz, Les Fleurs

SATURDAY
continued

(Waldteufel). March (Lindemann). March, Folies-Bergères (Lincke). 5.30—See *Berlin* (*Königs Wusterhausen*). 5.55—Talk: The Twenty-Fifth Anniversary of the Death of Julius Langbehn. 6.30—Review of the Week's Literary Programmes and Talks.

7.0—Weather Report, followed by *Concert by the Station Orchestra*, conducted by Franz Marszalek. Overture, "The Ace of Hearts" (Künneke). Nocturne from A Midsummer Night's Dream (Mendelssohn). Selection from "Hansel and Gretel" (Humperdinck). Berceuse (Moszkovsky). Waltz, The Wedding of the Winds (Hall). Selection from "Der Opernball" (Heuberger). March (Bernards). 8.0—Weather Report. 8.10—See Leipzig. 10.0—Time Signal, Weather Report, Press Review, Sports Notes and Programme Announcements. 10.30—See *Berlin* (*Witzleben*). 12 *midnight* (approx.)—Close Down.

BRNO (Czechoslovakia)

878 kc/s (342 m.); 35 kW.

Transmits at intervals from 11.0 a.m.

6.0 *p.m.*—Topical Talk. 6.15—See *Prague*. 6.25—German Transmission: News and Concert. 7.0—See *Prague*. 7.20—Talk by Marcela. 8.55—See *Prague*. 10.20—Announcements. 10.25—See *Moravská-Ostrava*.

BRUSSELS (Belgium) (No. 1)

I.N.R. 590 kc/s (509 m.); 15 kW.

12.15—1.45 *p.m.*—Weather and Concert by the Max Alexys Orchestra.

5.0—Gramophone Concert. Orchestral Music, conducted by Philippe Gaubert. Overture, "Le Roi d'Ys" (Lalo). Ballade, Op. 19 (Fauré). Daphnis et Chloë Suite No. 2 (Ravel). In the Steppes of Central Asia (Borodin). Danse macabre (Saint-Saëns).

6.15—Talk: Instruction in Household Management. 6.30—Gramophone Records of Light Music. 7.15—Microphone Report: Belgian Railways—The Big Stations. 7.30—Literary Review.

8.0—Orchestral Concert, conducted by Philippe Gaubert. Tragédie de Salomé (Schmitt). Two Nocturnes (Debussy). Les Chants de la Mer (Gaubert). 8.45—Talk by Paul de Stocklin: French Music. 9.0—*Concert* (*continued*). Overture, "Carnival Romain" (Berlioz). Habanera (Aubert). Pelléas et Mélisande (Fauré). La Valse (Ravel). 10.0—Le Journal Parlé.

BRUSSELS (Belgium) (No. 2)

N.I.R. 887 kc/s (338.2 m.); 15 kW. Programme in Flemish.

12.15—1.45 *p.m.*—Weather and *Gramophone Concert*. Selection from "The Geisha" (Jones). Selection from "The Belle of New York" (Kerber). Dance of the Hours from "La Gioconda" (Ponchielli). Aria from "The Little Dutch Girl" (Kálmán). Selection from "The Cinema Star" (Gilbert). Selection from "The Countess Maritza" (Kálmán). A Bench in the Park. Foxtrot, Happy Feet. Old Russian Air. Variations on a Popular Theme. Selection (Billi). In a Turkish Bazaar (Dreyer). Under the Spell of the Waltz (Perry). I'll always be dreaming of you (Yorke). Musica Proibita (Gastaldon). Mattinata (Leoncavallo). One Step, Rio de Janeiro. Waltz, For You. Foxtrot, Oh Mo'nah. Foxtrot, If I didn't have you. Two Selections (Lanner). To-day I feel so happy. Live, love and Laugh. March.

5.0—Concert by the Max Alexys Orchestra from L'Ancienne Belgique.

6.0—*Gramophone Concert*. Overture, "The Mastersingers" (Wagner). Selection from "Tannhäuser" (Wagner). Aria from "Carmen" (Bizet). Ballad and Polonaise (Vieuxtemps). Slavonic Dance, No. 16 (Dvorák). Polish Dance, No. 8 (Borodin).

6.30—Recital of Old Flemish May-Songs by J. Maelfeyt-Rovies and Mr. Hermans. Mme. A. Schmitz-Van den Bosch at the Pianoforte, with Commentary by Dr. Maurits Sabbé.

7.15—Talk: Goethe as a Dramatic Author. 7.30—Cinema Review. 8.0—See Brussels No. 1. 10.0—Le Journal Parlé.

BUCHAREST (Romania)

Radio-Bucarest. 761 kc/s (394 m.); 12 kW.

11.0 *p.m.*—Divine Service from the Amza Church.

BUDAPEST (Hungary)

545 kc/s (550 m.); 18.5 kW.

Transmits at intervals from 9.15 a.m.

6.10 *p.m.*—Recital of Hungarian Songs of the Eighteenth and Nineteenth Century. 6.45—Talk: The Budapest International Fair and Agriculture.

7.20—The Growth of the Operetta. VI. Millöcker Concert by the Royal Hungarian Opera House Orchestra, conducted by Bela Nagypal. Soloists: Elisabeth Toth and Kolomann Szügyi (Vocalists). Talk by Imre Farkay. Four Songs from "Der Bettelstudent," Selections from (*a*) "Gasparone," (*b*) "Der arme Jonathan," (*c*) "Die Hexenburg."

8.50—Programme by Aranka Varady and Franz Kiss. 10.0—Cigány Concert from the Hotel Hungaria. 10.10—Weather Report.

COPENHAGEN (Denmark)

1,067 kc/s (281 m.); 0.75 kW. Relayed by *Kalundborg*, 260 kc/s (1,153 m.).

Transmits at intervals from 7.30 a.m. (Gymnastics).

12 *noon*—Town Hall Chimes. 12.2—1.0 *p.m.*—String Ensemble Concert from the Wivex Restaurant. 2.30—Gramophone Records of Variety Music. 3.0—Programme for Children.

3.30—*Orchestral Concert*, conducted by Launy Gröndahl. Soloist: Adele Lyngstrup (Pianoforte). Overture, "The Golden Cross" (Brüll). Waltz from "The Little Mermaid" (Fini Henriques). Selection from "The Little Match Girl" (August Enna). Ronde française (Boëllmann). Music of the Spheres, for Strings (Rubinstein). Tivoli Skydebane-Galop (Lumbye). Pianoforte Solos: (*a*) Étude fantastique (Friml), (*b*) Valse (Sibelius), (*c*) Polacca brillante, and (*d*) Rondo brillante (Weber). March (Fucik). Old English Folk Dances: (*a*) Hornpipe, (*b*) Reel, (*c*) Irish Washerwoman. Selection from "Sylvia" (Delibes). Selections from "Blade af Aarets Billedbog" (Louis Glass). Neapolitan March (Gastaldon).

5.40—Exchange Quotations and Fish Market Prices. 5.50—Talk. 6.20—French Lesson. 6.50—Weather and News. 7.15—Time Signal. 7.16—Review of Politics for the Month of April. 7.45—Talk in connection with "Children's Aid Day." 8.0—Town Hall Chimes.

8.2—"Goethe and Music"—Talk and Song Recital.

8.35—11.0—Variety Programme.

8.35—*Orchestral Concert of Marches and Waltzes*, conducted by Launy Gröndahl. March, Liberty Bell (Sousa). Waltz, Siesta (Waldteufel). Niki March from "A Waltz Dream" (Oscar Straus). Waltz, Hoffnungsstrahlen (Lanner). Arabian March (Ganne). Waltz, Die Hydropathen (Gung'l). Hungarian March, Attila (Fucik).

9.5—Recital of Songs with 'Cello obbligato. 9.25—Reading (Edgar Wallace).

9.45—Saxophone and Marimba Recital. Saxophone Solos: (*a*) Valse élégante (Carlo Thomsen), (*b*) Judex from "Mors et vita" (Gounod). Two Selections arranged for Marimba by Richard Stangerup: (*a*) The Match Parade (Karl Wehle), (*b*) Melody in F (Rubinstein). Saxophone Solo: Hindu Song from "Sadko" (Rimsky-Korsakov). Pardon Madame—Waltz for Saxophone and Marimba from "Victoria and her Hussar" (Abraham).

10.15—News Bulletin. 10.30—Recital of Danish National Songs. 10.45—Dance Music from the Lodberg Restaurant. 12 *midnight*—Town Hall Chimes. 12.15 *a.m.* (*Sunday*)—Close Down.

CRACOW (Poland)

959 kc/s (312.8 m.); 1.5 kW.

Transmits at intervals from 11.45 a.m.

6.50 *p.m.*—Miscellaneous Items and Announcements. 7.0—Talk: Antiques. 7.15—Agricultural Report. 7.25—Programme Announcements. 7.30—Review of the Week's Foreign Politics. 7.45—10.50—See *Warsaw*. 10.50—Dance Music. 12 *midnight* (approx.)—Close Down.

DUBLIN (Ireland)

(2RN). 725 kc/s (413 m.); 1.2 kW. Relayed by *Cork*, 1,337 kc/s (224.4 m.).

1.30—2.0 *p.m.*—Time Signal, Weather Forecast, Stock Report and Light Music on Gramophone Records. 7.20—News Bulletin. 7.30—Time Signal. 7.31—Talk: "Fly Fishing for Trout." 7.45—Gaedhilg. 8.0—Light Opera (to be announced). The Station Orchestra and the Station Light Opera Chorus. Conductor: Vincent O'Brien. 10.30—Time Signal, News, Weather Report and Close Down.

FÉCAMP (France)

Radio Normandie. 1,364 kc/s (219.9 m.); 10 kW.

Transmits at intervals from 12 noon.

7.30 *p.m.*—Talk: Political Economy and France. 8.0—Programme arranged by the "Tour de Garde." 8.45—News Bulletin. 9.0—"*Faust*"—Opera (Gounod), followed by Picture Transmission. 11.0—3.0 *a.m.* (*Sunday*)—Variety Concert. 3.0 (approx.)—Close Down.

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.5 kW. Relayed by *Cassel*, 1,220 kc/s (246 m.).

Transmits at intervals from 6.0 a.m.

12 *noon*—*Orchestral Concert*. Serenade Op. 22 for Strings (Dvorak). Dance Suite from the Ballet, "Ein Märchen aus der Champagne" (Brüll).

12.50 *p.m.*—News Bulletin. 12.55—Nauen Time Signal. 1.0—Concert from *Munich*. 2.0—News Bulletin. 2.5—Concert. 2.40—Sponsored Gramophone Concert. 3.20—Weather Report. 3.25—Time and Economic Notes.

3.30—See *Stuttgart*. 4.55—Economic Notes. 5.0—See *Stuttgart*. 6.15—Economic Notes. 6.25—European Dialogues: Germany and England, by Rudolf Kircher and H. Nicholson. 7.5—Time and News. 7.15—Joachim Ringelnatz reads from his own Works.

7.45—"Colonel Lawrence"—a Radio Play.

8.30—Variety Programme in Aid of the Wiesbaden Winter Relief Fund, relayed from the Kurhaus, *Wiesbaden*. Paul Godwin and his Orchestra. Werner Fink and Dora Gerson (Vocalists). Variety Items by Roda Roda and Emil Seidenspinner. 10.20—Time and News. 10.45—Dance Music from *Berlin* (*Witzleben*).

HAMBURG (Germany)

Norag (ha, in Morse). 806 kc/s (372 m.); 1.5 kW. Relayed by *Bremen*, 1,112 kc/s (270 m.); *Flensburg*, 1,373 kc/s (218 m.); *Hanover*, 530 kc/s (566 m.); and *Kiel*, 1,292 kc/s (232.2 m.).

Transmits at intervals from 5.45 a.m.

5.55 p.m. (from Hanover)—Concert from the Works of Adolf Klages—a Hanoverian Author-Composer—on the occasion of his Seventieth Birthday. The Volkssingakademie, conducted by Karl Meinberg and Otto Ebel von Sösen and Wilhelm Genger (Pianists). Pianoforte Duet: Overture, "Des Königs Geburtstag." Choral Selections from "Der Jäger vom Königssee": (*a*) Bergfrühling, (*b*) Chor der Geisbuben, (*c*) Dörpertanzweise.

6.30 (from *Bremen*)—Dialogue: A Revolt against the Intellect. 6.55—Frankfurt Exchange and Hamburg Market Prices. 7.0—Topical Talk. 7.15—Weather Report. 7.20 (from *Bremen*)—Music on Folk Instruments.

8.0—Variety Programme from Langenberg. 10.10—Time and News.

10.30 (from Hanover)—Walpurgis Night on the Brocken.

HEILSBERG (Germany)

1,085 kc/s (276.5 m.); 60 kW. Relayed by *Danzig*, 662 kc/s (453.2 m.)

Transmits at intervals from 6.30 a.m.

11.30 *a.m.*—Concert from *Hamburg*.

1.20 *p.m.*—Announcements.

1.30—2.30—*Gramophone Concert*. Suite, Petrouschka (Stravinsky). Waltz from "Der Rosenkavalier" (Strauss). Two Songs (Offenbach). Potpourri from "Die Fledermaus" (Johann Strauss). Folk Song, Der gelangene Kosak. Signal March of the Cavalry.

3.35 (from *Danzig*)—Programme for Children. 4.5—Concert from *Berlin* (*Witzleben*). Film Notes in the interval. 6.0—Programme Announcements for the Coming Week. 6.10—Programme Intelligence in Esperanto. 6.15—Market Prices. 6.30—Talk: The Memel District. 6.55—International Market Prices.

7.5—Concert of Italian Chamber Music. Serenade for Clarinet, Bassoon, Trumpet, Violin and 'Cello (Casella). Sonata for Flute, Oboe, Bassoon and Pianoforte (Rieti). 7.40—The Calendar for the Month of May. 7.50—Monthly Review. 8.20—Weather Forecast.

8.25—*Wind Instrument Concert*, conducted by Felix Prawniczak. March, Wir präsentieren (Ailbout). March, Suum cuique (Schwittmann). Pariser Einzugsmarsch. Geschwindmarsch aus Quadrillen (Johann Strauss). Steinmetz-Marsch (Bratfisch). Army March, No. 224 (Haefele). March, Unter dem Gardestern (Möller). Bravour Marsch (Poepping). March, Germanenblut (Blankenburg). March, Götterfunken (Rumohr). Waltz, Lustiges Wien (Meisel). Einzug der Rosenkönigin (Rhode). Overture, "Banditenstreiche" (Suppé). Selection from "Congress Dances" (Heymann). Selection from "Bombes sur Monte Carlo" (Heymann). Glow Worm Idyll (Lincke). March, Von Donop (Rust).

10.10—News Bulletin. 10.30—See *Hamburg*. 12.30 *a.m.* (*Sunday*)—Close Down.

HILVERSUM (Holland)

1,004 kc/s (298.8 m.); 8.5 kW.

Programme of the Algemeene Vereeniging Radio Omroep (A.V.R.O.).

8.40 *a.m.*—Time Signal. 8.41—Concert by a Children's Choir, conducted by Willem Hespe. 9.10—Variety Music on Gramophone Records. 10.40—Time Signal. 10.41—The Daily Service. 10.55—Popular Gramophone Music.

11.10—*Organ Recital by Frans Hasselaar*. Soloist: Jac. Caro (Bass). Variations for Organ on the "Wilhelmus" (Hasselaar). Songs. Fantasie for Organ (Hasselaar).

11.40—Recitations. 12.10 *p.m.*—*Organ Recital* (*continued*). Prelude and Fugue in G Minor (Buxtehude). Songs. Religious March for Organ (Gigout).

12.40—Time Signal. 12.41—Variety Music on Gramophone Records. 1.10—2.40—Concert by the Wireless Chamber Orchestra, conducted by G. Hemmes. 2.55—Quartet, Op. 96 (Dvorák), by The Hague Quartet. 3.25—Radio Play.

3.55—Concert by the Amsterdam Orchestra, conducted by Nico van der Linden. Overture, "Der Freischütz" (Weber). Waltz from the Serenade, Op. 49, for Strings (Tchaikovsky). Ballet Music from "Rosamunde" (Schubert). Selections by a Women's Choir. Neapolitan Scenes (Massenet). Two Melodies, Op. 53 (Grieg). Waltz, Roses from the South (Johann Strauss). Selections by a Women's Choir. Overture, "William Tell" (Rossini). Cradle Song (Järnefelt). Prelude (Järnefelt). Selection from "Die Fledermaus" (Johann Strauss).

6.10—Concert relayed from the Central Hotel, *The Hague*. 7.10—Variety Music on Gramophone Records. 7.40—Talk. 8.10—Concert by the Wirelessa Orchestra, conducted by Nico Treep. 9.10—Variety Music on Gramophone Records and Barrel-Organ Music.

9.40—Concert by Kovacs Lajos and his Orchestra, with Songs by Bob Scholte. Variety Items and Recitations in the intervals. 11.40—Popular Gramophone Music. 12.40 *a.m.* (*Sunday*)—Close Down.

HUIZEN (Holland)

160 kc/s (1,875 m.); 8.5 kW.

Programme of the Catholic Radio Society (K.R.O.). 8.40—9.55 *a.m.* Variety Music on Gramophone Records. 10.40—Trio Concert, conducted by Piet Lustenhouwer. 12.10 *p.m.*—Religious Address. 12.40—Police Notes.

12.55—*Sextet Concert*. The Bell of Barcelona (Payne). The Rumba (Eduard Strauss). Dutch Potpourri (Lustenhouwer). The Little Pagoda (Siede). Selection from "Madame Butterfly" (Puccini). Murmurando (Racho). Selection from "The Czardas Princess" (Kálmán). Gipsy Romance (Eineg). Waltz, The Wedding of the Winds (Hall). English Waltz (Gilbert). March, On Guard (Grit).

2.40—Variety Music on Gramophone Records. 3.10—Programme for Children. 4.40—Variety Music on Gramophone Records.

5.25—*Military Band Concert*, conducted by S. P. van Leeuwen. National Anthem, Wilhelmus van Nassauwe. March, Julianan (av Erp). Overture, Neerlandia (Wesly). Oriental Suite (Popy). 5.55—Talk on Sports. 6.10—*Concert* (*continued*). Overture, "Das goldene Kreuz" (Brüll). Waltz, Gold and Silver (Lehár). Entr'acte Gavotte (Gillet). March, The Hook of Holland (van Leeuwen). 6.40—Press Review. 7.0—*Concert* (*continued*). Waltz, Blumengeflüster (von Blon). Potpourri of Dutch Songs and Dances (Oomes). March Graf Zeppelin (Teike).

7.20—Esperanto Lesson. 7.50—Talk: The Chino-Japanese Conflict in 1895 and its Consequences. 8.10—Police Notes. 8.25—Popular Music on Gramophone Records.

8.40—Concert by the KRO Orchestra, conducted by Marinus van 't Woud. Potpourri, Zoo zingt Holland (Sluyter and Hoogenboom). Dutch Clog Dance (Samehtini). Dance of the Dutch Peasant Girls (Samehtini). Patrol of the Little Soldiers (Rebattu). Potpourri, Neerlandia (Wesly). Two Dutch Dances (Siep). March Potpourri (Ciere). March, The Diplomat (Sousa). Potpourri, Ufaton-Bomben (Borchert). Waltz from "Eva" (Lehár). March Potpourri, Hals-und Beinbruch. Oriental Suite (Armandola). Selection from "The Czardas Princess" (Kálmán). March, Liberty Bell (Sousa). In the interval at 9.40—News Bulletin.

11.40—Popular Music on Gramophone Records. 12.40 *a.m.* (*Sunday*)—Close Down.

KALUNDBORG (Denmark)

Kalundborg Radio. 260 kc/s (1,153 m.); 7.5 kW.

See *Copenhagen*.

KATOWICE (Poland)

734 kc/s (408 m.); 16 kW.

Transmits at intervals from 11.58 a.m.

6.30 *p.m.*—Concert for Young People. 8.15—Concert of Light Music. 10.10—Concert of Chopin Music. 10.50—Dance Music.

LAHTI (Finland)

167 kc/s (1,796 m.); 54 kW. Relayed by *Helsinki*, 815 kc/s (368.1 m.).

Transmits at intervals from 7.10 a.m.

6.15 *p.m.*—Violin Recital by Toivo Oras. 6.45—Talk (to be announced). 7.10—Programme arranged by the Navy. 8.45—News and Close Down.

LANGENBERG (Germany)

Westdeutscher Rundfunk. 635 kc/s (473 m.); 60 kW.

Transmits at intervals from 6.45 a.m. (Exercises, Weather, Time and Gramophone Concert)

11.20 *a.m.*—Concert conducted by Wolf. 12 *noon*—Concert from *Frankfurt*. 12.50 *p.m.*—Weather, Announcements and Time. 1.0—Concert from *Munich*. 2.35—Gramophone Concert of Popular Music. 3.30—Economic Notes and Time. 3.50—Programme for Children. 4.30—A Visit to the Children's Section of the Eleventh Soest Cantata Festival.

5.0—Concert. 6.0—*English Lesson*. 6.20—Talk: Touring in the Prum Valley. 6.40—Technical Talk: New Motor Cars. 7.0—Weather, Time, Economic Notes and Sports Results. 7.15—Wireless Technical Notes. 7.30—Talk: The Oldest Civilisation of Mankind. 7.55—News Bulletin.

8.0—Variety Programme, followed by News. 10.45 (approx.)—Dance Music from *Berlin* (*Witzleben*). 12 *midnight*—Dance Music. 1.0 *a.m.* (*Sunday*)—Close Down.

LEIPZIG (Germany)

1,157 kc/s (259 m.); 2 kW. Relayed by *Dresden*, 941 kc/s (319 m.).

Transmits at intervals from 6.30 a.m.

5.0 *p.m.*—*Concert of Marches and Waltzes by the Leipzig Symphony Orchestra* conducted by Theodor Blumer. March, Hand in Hand (von Blon). Waltz, Gross Wien (Joh. Strauss). March, Aus eigener Kraft (Rupprecht). Waltz from "Madame Pompadour" (Fall). March, Per aspera ad astra (Urbach). Waltz from "Die Landstreicher" (Ziehrer). March, Die Bosniaken kommen (Wagnes). Waltz, Frühlingskinder (Waldteufel). March, Deutschlands Ruhm (Schröder). Waltz from "The Czardas Princess" (Kálmán). March from "Wiener Frauen" (Lehár). Waltz from "Boccaccio" (Suppé). March, Die Welt ist so schön (Jünger).

6.30—Talk: German Aviation Terms. 6.50—"A Modern Dictionary." 7.0—Talk: The History of the Earth—the Tradition of the Flood.

7.25 — Goethe's Ballads set to Music [by] Modern Composers—Recital by Adolf Vogel (Baritone), with Introductory Talk. Der Fischer (Ziegler). Selection from "Gott und die Bajadere" (Matthieson). Der Zerstörung Magdeburgs (Krenek).

8.0—Cabaret Programme. 10.5—News Bulletin, followed by Dance Music.

11.30—Walpurgis Night on the Kulm, near Saalfeld. 12.30 *a.m.* (*Sunday*)—Close Down.

LJUBLJANA (Yugoslavia)

522 kc/s (574.7 m.); 2.5 kW.

Transmits at intervals from 12.15 p.m.

5.0 *p.m.*—Quintet Concert. 6.0—Talk on the Town of Novomesto. 6.30—Gymnastic Course. 7.0—*English Lesson*. 7.30—Elocution Lesson. 8.0—Concert by the Grafika Choir and Orchestra. 10.0—Time Signal and News Bulletin. 10.15—Concert of Light Music.

SATURDAY continued

LWÓW (Poland)
788 kc/s (381 m.); 16 kW.
Transmits at intervals from 11.45 a.m.
6.50 *p.m.*—Miscellaneous Items. 7.15—See *Warsaw*. 7.30—Talk on Aviation. 7.45—See *Warsaw*. 10.45—Talk: The Economic Crisis. 11.5—Relay of Foreign Stations. 12 *midnight* (approx.)—Close Down.

LYONS (France)
La Doua (PTT) 644 kc/s (465.8 m.); 1.5 kW.
Transmits at intervals from 8.0 a.m.
7.0—Popular Music on Gramophone Records. 7.30—Radio Gazette for Lyons and the South-East. 8.30—Sponsored Concert.

MADRID (Spain)
Union Radio (EAJ7). 707 kc/s (424.3 m.); 2 kW.
Transmits at intervals from 9 a.m.
8.0 *p.m.*—Chimes, Exchange, Market Prices and Request Gramophone Concert. 9.15—9.30—News Bulletin. 10.0—French Lesson on Gramophone Records.
10.30—Chimes, Time, and *Musical Comedy Selections*: (*a*) "Moros y Cristianos" (Serrano), (*b*) "Molinos de Viento" (Luna). 12.45 *a.m.* (*Sunday*)—News Bulletin. 1.0 *a.m.*—Chimes and Close Down.

MILAN (Italy)
Ente Italiano Audizioni Radiofoniche. 905 kc/s (331.5 m.); 7 kW.
See *Turin*.

MORAVSKÁ-OSTRAVA (Czechoslovakia)
1,137 kc/s (263.8 m.); 11 kW.
Transmits at intervals from 11.0 a.m.
6.25 *p.m.*—Guitar Duets. 7.0—See *Prague*. 10.20—Programme Announcements and Theatre Guide. 10.25—Variety Programme.

MOSCOW (Russia)
Trades Union. 230.1 kc/s (1,304 m.); 100 kW.
Transmits at intervals from 5 a.m.
4.0 *p.m.*—Proletariat Radio Journal. 5.0—Agricultural Programme. 6.0—Programme to be announced. 8.0—Talk in German and *English*: The First of May in Soviet Russia. 9.55—Chimes and Close Down.

MUNICH (Germany)
563 kc/s (533 m.); 1.5 kW. Relayed by *Augsburg* and *Kaiserslautern*, 536 kc/s (560 m.) and *Nürnberg*, 1,256 kc/s (239 m.).
Transmits at intervals from 6.45 a.m.
4.10 *p.m.*—*Concert* conducted by Erich Kloss. Soloist: Albert Kopp (Pianoforte). Overture, "The Nuremberg Doll" (Adam). Waltz in E Major (Moszkovsky). Pianoforte Solos: (*a*) Suite, Sanssouci (Oettingen), (*b*) Intermezzo in A Minor (Brahms). Intermezzo and Barcarolle from "The Tales of Hoffmann" (Offenbach). Der Rose Hochzeitszug (Jessel). March, Folies Bergère (Lincke).
5.0—Programme for Girls. 5.35—A Relay from *Alötting*. 7.5—Wireless Notes.
7.20—*Concert by the Soloist Quartet of the Regensburg Choral Society*. Songs (Eisenmann): (*a*) Feldkreuz, (*b*) Am Wiesenbach. Tales from the Vienna Woods (Strauss-Eisemann). 's Busserl (Meyer). Irgendeinmal kommt irgendwer (Ascher).
7.50—Wireless Notes. 8.0—Orchestral Concert. 9.0—Variety Programme. 10.20—Time and News. 10.45—Dance Music relayed from *Berlin* (*Witzleben*). 12 *midnight* (approx.)—Close Down.

OSLO (Norway)
Kringkastingselskapet. 277 kc/s (1,083 m.); 60 kW. Relayed by *Fredrikstad*, 816 kc/s (367.6 m.); *Hamar*, 536 kc/s (560 m.); *Notodden*, 671 kc/s (447.1 m.); *Porsgrund*, 662 kc/s (453.2 m.); and *Rjukan*, 671 kc/s (447.1 m.).
Transmits at intervals from 11.10 a.m.
4.15 *p.m.*—*Orchestral Concert*. Overture, "The Daughter of the Regiment" (Donizetti). The Nutcracker Suite (Tchaikovsky). Berceuse (Per Winge). Valse ancienne (Johansen). Minuet (Lund). Four Old Bergen Dances (arr. Andersen Wingar).
5.15—Programme for Children. 6.15—Song and Hardanger Fiddle Recital from the Works of Norwegian Composers. 6.45—Talk on Economics. 7.0—Announcements, Weather and News. 7.30—Theatre Review. 8.0—Time Signal. 8.2—Spring Revue, relayed from the "Chat Noir" Theatre. In the intervals, Weather, News and Topical Talk. 11.0—Dance Music. 12 *midnight* (approx.)—Close Down.

PALERMO (Italy)
Ente Italiano Audizioni Radiofoniche. 554 kc/s (542 m.); 3 kW.
Transmits at intervals from 12.45 p.m.
5.30 *p.m.*—Light Music on Gramophone Records. 6.0—Programme for Children. 6.30—8.0—Interval. 8.0—News, Agricultural Notes and Giornale Radio. 8.20—Sports Report. 8.30—Time Signal, News and Light Music on Gramophone Records.
8.45—"La Casa Innamorata"—Operetta in Three Acts (Lombardo). In the interval, Book Review and Announcements. 10.55—News and Close Down.

PARIS (France)
Eiffel Tower (FLE). 207.5 kc/s (1,445.7 m.); 13 kW.
Time Signals (on 2,650 m.) at 10.26 a.m. and 11.26 p.m. (preliminary and 6-dot signals).
Transmits at intervals from 1.0 p.m.
6.45 *p.m.*—Illustrated Talk on Music. 7.0—Le Journal Parlé. 8.20—Weather Report. 8.30—"*L'honnête fille*"—Comedy in Two Acts (Nigond). In the interval, Wireless Notes.

PARIS (France)
Poste Parisien. 914 kc/s (328.2 m.); 1.2 kW.
Transmits at intervals from 12.0 noon.
6.45 *p.m.*—News and Announcements. 7.0—Gramophone Records, Talks and News. 7.30—Light Music on Gramophone Records. 8.30—Gramophone Records, Talk and News.
8.45—*Vocal and Orchestral Concert*. Overture, "The Czar's Bride" (Rimsky-Korsakov). Waltz, Roses from the South (Johann Strauss). Orchestral Suite (Suk). Symphonic Poem, Saugefleurie (d'Indy). Prélude à l'après-midi d'un Faune (Debussy). Entr'acte from "La Galante Aventure" (Guiraud). Boléro (Ravel). Dance grotesque (Schmitt). Joyeuse Marche (Chabrier).
10.45—News Bulletin. 10.50 (approx.)—Close Down.

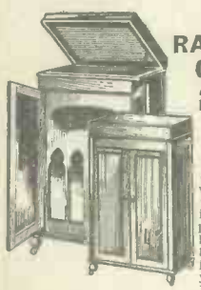
PARIS (France)
Radio-Paris (CFR). 174 kc/s (1,725 m.); 75 kW.
6.45 *a.m.*—Physical Culture Course. 7.30—Weather Forecast and Physical Culture (contd.). 7.45—Light Music on Gramophone Records. 8.0—News, Weather and Press Review.
12.30 *p.m.*—*Variety Concert on Gramophone Records*. Naranjos (Graut). Rondo Nocturne (Dani). Pluie de Roses (Avignon). Le Renard et le Courbeau (Zoubaloff). Blonde Amie (Carcel). Ce que disent les Cloches (Massenet). La Chasse aux Cailles (Paradis). Waltz from "The Desert Song" (Romberg). Waltz, Etincelles (Waldteufel). Le petit Rentier (Pierné). Autour du Moulin (Féret). Je sais que vous êtes jolie (Christiné). Paysage (Hahn). The Parade of the Tin Soldiers (Jessel). C'est Rosalie (Szulc). Happy Days are here again (Milton). In the intervals at 1.0—Exchange Quotations, News and Weather, and at 1.30 and 2.0—Exchange Quotations.
3.0—Programme for Children. 3.45—Exchange and Market Prices.
5.0—Concert by the "Association des Concerts Colonne," relayed from the Théâtre du Châtelet. 6.30—Market Prices, Weather, Agricultural Report, and Racing Results. 7.0—Talk arranged by the Union des Grandes Associations Françaises. 7.10—Scientific Talk by Georges Colomb: The Moon. 7.30—Book-keeping Lesson. 7.45—Press Review. Commercial Prices and News. 8.0—Literary Readings. 8.30—News, Sports Notes and Weather Report. 8.40—Review by René Dorin.
8.45—Revue by Morris, with Mlle. Gisèle Parry. 9.15—Press Review and News. 9.30—*Concert of Request Gramophone Records*. Turkish Patrol (Michaelis). Serenade (Toselli). Les Millions d'Arlequin (Drigo). Quand les Lilas refleuriront (Dihan-Auriol). Les Papillons de Nuit (Gabaroche). Dis-moi (Larrieu). Ce n'est pas vrai (Larrieu). Serenade, Ay, Ay, Ay! (Perez Freire). Tes Yeux (Bonincontro). Le Paradis du rêve (Fysher). When Love dies (Berlin). L'Embouteillage (Bach-Laverne). Waltz (Vogel). Estrellita (Ponce). Valse bluette (Drigo). Paris, soleil du monde (Hermite).

POZNAŃ (Poland)
806 kc/s (335 m.); 1.9 kW.
Transmits at intervals from 11.45 a.m.
6.50 *p.m.*—Miscellaneous Items and Announcements. 7.15—Talk on the Twenty-Fifth Anniversary of the Death of Stanislav Wyspiansky. 7.30—Talk for Women. 7.45—10.45—See *Warsaw*. 10.45—Time Signal, Sports Notes and Police Report. 11.0—Dance Music from the Café "Polonia." 12 *midnight* (approx.)—Close Down.

PRAGUE (Czechoslovakia)
614 kc/s (488.6 m.); 120 kW.
Transmits at intervals from 11.0 a.m.
4.10 *p.m.*—Orchestral Concert relayed from *Brno*. 5.10—German Transmission: Talk by Dr. Siebenschein. 5.25—Talk. 5.35—Talk: Books for Young Men. 6.5—Agricultural Report. 6.15—Talk: The First of May. 6.25—German Transmission: News and Concert conducted by Rudolf Kraus. 7.0—Talk: Czechoslovakia from 1914—1918. 7.20—Camp Songs for Boys. 7.55—Popular Brass Band Concert. 8.55—News Bulletin. 9.0—Time and News. 9.2—Orchestral Concert, conducted by Otakar Parik. 10.0—Time and News. 10.20—Miscellaneous Announcements. 10.25—See *Moravská-Ostrava*.

RADIO-SUISSE ROMANDE (SOTTENS) (Switzerland)
743 kc/s (403 m.); 25 kW.; *Lausanne*, 442 kc/s (680 m.); and *Geneva*, 395 kc/s (760 m.).
Transmits at intervals from 12.30 p.m.
4.31 *p.m.*—Orchestral Concert, conducted by Robert Echenard. 6.0

End-of-Season Sale



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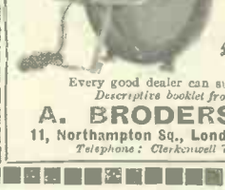

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(from *Lausanne*)—Dance Music. 6.30 (from *Geneva*)—Book Review. 7.0—Weather Forecast. 7.1 (from *Lausanne*)—Light Music on Gramophone Records. 7.30 (from *Lausanne*)—Talk: The Week in International Politics. 7.55—Announcements. 8.0 (from *Geneva*)—Talk: The Work of the Disarmament Conference. 8.10 (from *Lausanne*)—Popular Concert: Selections by the Orchestra "Le Folly," Zither Duets and Yodelling Selections. 9.15—Variety Concert by the Station Orchestra, conducted by Fernand Closset. 10.15—Weather and News. 10.25 (from *Geneva*)—Dance Music, relayed from the "Moulin Rouge." 11.40 (from *Geneva*)—Easter Mass, relayed from the Russian Church. 1.30 *a.m.* (*Sunday*)—Close Down.

RIGA (Latvia)

572 kc/s (525 m.); 15 kW.
Transmits at intervals from 6.0 a.m
4.0 *p.m.*—Concert of Popular Music. 4.30—Talk on Politics. 5.0—Chamber Concert of Mendelssohn's Music. 6.0—French Lesson. 6.30—Agricultural Talk. 7.0—Weather Forecast. 7.5—Variety Programme. In the intervals at 8.0 and 9.0—News and Weather Forecast. 10.0—Dance Music. 12 *midnight* (approx.)—Close Down.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche (1RO). 680 kc/s (441 m.); 50 kW. Relayed by *Naples*, 941 kc/s (319 m.) and 2RO, 11,810 kc/s (25.4 m.).
Transmits at intervals from 8.15 a.m. (Giornale Radio).
12 *noon*—Gramophone Records of Variety Music. 12.35 *p.m.*—Weather Forecast.
12.45—2.0—*Vocal and Instrumental Concert.* Songs by Maria Baratta (Soprano): (*a*) Dolce ricordo (Brogi), (*b*) Nuit d'Espagne (Massenet), (*c*) L'eco (Tomeucci). 'Cello Solos by Paolo Leonori: (*a*) Village Song (Popper), (*b*) Gavotte (Squire). Overture, "Il Seraglio" (Mozart). Minuet (Boccherini). Serenade (Haydn). Intermezzo from "L'Arlésienne" (Bizet). Selection from "The Count of Luxembourg" (Lehár). Ballata d'amore (Storti). In the intervals: Giornale Radio, Exchange, Time and Announcements.
5.0—Exchange, Report of the Royal Geographical Society, Giornale Radio and Announcements. 5.15—Reading.
5.30—*Song Recital* by Raffaella Tartara (Soprano). Aria from "Loreley" (Catalani). Aria from "Suor Angelica" (Puccini). Aria from "Ero e Leandro" (Bottesini).
5.45—*Variety Concert.* Du und Du (Strauss). La falce d'oro (Fanzini). Canto d'amore (Pennati-Malvezzi). O Paolo! Paolo! (Rotter). Donna Grazia (Ravasini). Selection (Abel).
6.15—Giornale dell'Enit. 6.20—Talk on Various Districts of Italy.
6.55 (from *Naples*)—Shipping and Sports Notes. 7.0—Atmospheric Signals, Morse Lesson, Agricultural Notes, Weather, Giornale radio and Press Review. 8.0—Time and Announcements. 8.5—Gramophone Records of Variety Music. 8.30—Sports Notes and Announcements.
8.45 (approx.)—Transmission of an Opera. In the intervals: Review of New Books, Theatre Talk and News.

SCHENECTADY (U.S.A.)

General Electric Company (WGY). 790 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,530 kc/s (31.48 m.) and by W2XAD on 15,340 kc/s (19.56 m.).
Transmits at intervals from 11.45 p.m.
9.0 *p.m.*—John K. Zorian (Organ).
9.30—Phil Spitalny's Orchestra from *New York*. 9.45—Musical Red Men.
10.15—11.0—*New York* Relay. 10.15—Skippy. 10.30—Blue Moon Cuckoos. 10.45—Landt Trio. 11.0—Joe and Eddie. 11.15—Waldorf Orchestra from *New York*. 11.30—Time Signal. 11.31—American Trio. 11.45—New Kenmore Orchestra. 12 *midnight*—(W2XAF only) Stock Reports and News Items.
12.15—1.15 *a.m.* (*Sunday*)—*New York* Relay. 12.15—Laws that Safeguard Society. 12.30—Prince Albert Quarter Hour. 12.45—Trials of the Goldbergs. 1.0—Wrigley Programme. 1.15—Bernard Silberg, 'Cellist. 1.30—4.0—*New York* Relay. 1.30—National Advisory Council Programme. 2.0—Goodyear Programme. 2.30—Club Valspar. 3.0—Lucky Strike Dance Hour. 4.0—DeWitt Clinton Orchestra. 4.30—Hotel New Yorker Orchestra from *New York*. 5.0—Ralph Kirbery, Dream Singer from *New York*. 5.5—Coon-Sanders' Night Riders from *New York*. 5.30—New Kenmore Orchestra. 6.0 (approx.)—Close Down.

SCHWEIZERISCHER LANDESSENDER (BEROMÜNSTER) (Switzerland)

653 kc/s (459 m.); 60 kW.; *Basle*, 1,229 kc/s (244.1 m.) and *Berne*, 1,220 kc/s (246 m.).
12.28 *p.m.*—Time Signal from Neuchâtel Observatory. 12.30—Weather and News. 12.40—Variety Programme on Gramophone Records. 2.0—Weather and Exchange Quotations.
2.15—3.30—Interval.
3.30 (from *Basle*)—Concert by the Basle Mandoline Double Quartet.
4.0—Concert of Light Music on Gramophone Records. 5.0 (from *Zürich*)—Programme for Children.
5.30—Weather and Market Prices.
5.45—6.30—Interval.
6.30—Favourite Sound Film Songs on Gramophone Records. 7.0 (from *Zürich*)—Chimes from the Zürich Churches. 7.15 (from *Zürich*)—Talk: Beromünster. 7.28—Time Signal and Weather Report. 7.30 (from *Zürich*)—Talk: Stuttgart and its Development from a Moated Castle to a Modern City.
8.0 (from Basle)—Popular Programme by the Alsatia Dramatic Ensemble and the Basle Accordion Club, including "*At Ropfer the Chemist's*"—Sketch in Three Acts (Stoskopf). 10.0—Weather and News. 10.15—Dance Music on Gramophone Records. 11.0 (approx.)—Close Down.

STOCKHOLM (Sweden)

Radiotjänst (SASA). 689 kc/s (436 m.); 55 kW. Relayed by *Boden*, 244 kc/s (1,229.5 m.); *Göteborg*, 932 kc/s (322 m.); *Hörby*, 1,166 kc/s (257 m.); *Motala*, 222.5 kc/s (1,348 m.); *Östersund*, 389 kc/s (770 m.) and *Sundsvall*, 554 kc/s (542 m.).
Transmits at intervals from 7.20 a.m. (Gymnastics).
4.0 *p.m.*—*Concert.* Overture, "Der Wildschütz" (Lortzing). Barcarolle (Offenbach). Berceuse (Jarnefelt). Oriental Suite, Caravan (Joyce). Tango, Canto della Gelosia (Pazzali). Toner från Södern (Brosch). Lehár Potpourri (Geiger).
5.0—Talk: Students in South Africa.
5.30—Popular Gramophone Music.
6.30—Talk: The Swedish Language, relayed from *Sundsvall*. 7.0—Ballad Recital by Torsten Winge. 7.15—Weather and News.
7.30—*Choral Concert* conducted by Gabriel Graner. Seven Songs from "A Wedding Suite from Swedish-Finland" (arranged Otto Andersson).
8.0—Orchestral Concert. Overture, Vanity Fair (Fletcher). Egyptian Suite (Haydn Wood). Persian March (Johann Strauss). Ballet Music from "Sicilian Vespers" (Verdi). Waltz, I love you (Waldteufel). Almeria (Mahy). Rhapsody Uppsala (Alfvéns).
9.0—Relay from the Students' May Night Revels in Uppsala. 9.30—Reading. 9.45—Weather and News. 10.0—Dance Music. 12 *midnight* (approx.)—Close Down.

STRASBOURG (France)

Radio-Strasbourg (PTT). 869 kc/s (345 m.); 11.5 kW.
11.30 *a.m.*—*Gramophone Concert.* Selection from "Orpheus in the Underworld" (Offenbach). Selection from "Véronique" (Messager). Selection from "Les Mousquetaires au Couvent" (Varney). Minuet (Bolzoni). Rigaudon from "Dardanus" (Rameau). Selection from "Rigoletto" (Verdi). Carnaval de Venise (Jean-Jean). La Fille aux cheveux de lin (Debussy). Selections (Maiotte-Almabig). Ungaria (Leoni). Selection from "The Dollar Princess" (Fall). My Ideal (Whiting). Romance bohémienne (Boldi).
12.45 *p.m.*—News in French and German. 1.0—Time Signal.
1.1—*Gramophone Concert.* Impressions d'Italie (Charpentier). Selection from "The Marriage of Figaro" (Mozart). Selection from "Don Giovanni" (Mozart). Gothic Minuet (Boëllmann). Neapolitan Song (d'Ambrosio). Rhapsody No. 11 (Liszt). Polonaise from "Mignon" (Thomas). Aria from "Mireille" (Gounod). Aria from "Rigoletto" (Verdi). Russian Potpourri.
2.0—Talk in French: Old and Modern Architecture in Alsace. 2.15—Gramophone Records of Light Music. 3.45—Illustrated Talk in French: Händel. 4.0—Gramophone Dance Music. 4.45—Talk in French: Assurance.

SATURDAY
continued

5.0—*Orchestral Concert*, conducted by M. Roskam March (Damaele). Waltz (Antiga). Intermezzo, Amber Eyes (Lohr). Overture, "La Fille de Madame Angot" (Lecocq). Chinese Street Serenade (Siede). Selection from "The Merry Widow" (Lehár). Waltz (Translateur). Wedding Serenade (Klose). Offenbach Potpourri (Conradi). March (Krier).
6.0—French Lesson in German.
6.15—Gardening Talk in German.
6.30—*Gramophone Concert.* Selection (Lehár). Selections from "Werther" (Massenet). La Croix du Chemin (Goublier). Stances (Flégier). The Dancing Doll (Smet). Grandmother's Clock (Smet). Passion (Ravásini). Locuras (Longi). Selections (Henrion): (*a*) Le muletier de Tarragone, (*b*) Le vieux ruban. Selection (Czibulka).
7.30—Time Signal. 7.31—News in French and German.
7.45—*Gramophone Concert.* Can this be love? Loving you the way I do. Cloudless Sky. Cheer up. Murcia. Argentine Passion. Every now and then. I'm in love with you. Waltz, Wienerbonbons (Johann Strauss). Waltz, Moonlight on the Alster (Fetras).
8.30—"Paganini"—Operetta in Three Acts (Lehár) by the Station Orchestra and Soloists under the direction of Maurice de Villers. 10.30—Dance Music from the Savoy. 12 *midnight* (approx.)—Close Down.

STUTTGART (MÜHLACKER) (Germany)

Süddeutscher Rundfunk. 832 kc/s (360.5 m.); 60 kW. Relayed by *Freiburg*, 527 kc/s (570 m.).
Transmits at intervals from 6.0 a.m. (Time, Weather and Gymnastics).
10.0 *a.m.*—Song Recital. 10.25—*Chamber Music* relayed from *Karlsruhe*. String Quintet, Op. 77 (Dvorak).
11.0—News and Time. 11.35—Educational Talk: Instruments. 12 *noon*—Weather Report. 12.5 *p.m.*—Sponsored Gramophone Records.
12.20—Concert from *Frankfurt*. 12.50—Time and News. 1.0—Concert from *Munich*. 2.0—Gramophone Records of Light Music. 2.30—Recitations from the Works of Freiligrath, Herwegh and Dingelstedt.
3.0 (from *Freiburg*)—*Concert by the "Eintracht" Male Voice Choral Society.* Die Marienblume (Schweitzer). Als ich bei meinen Schafen wacht' (Rahner). Es taget vor dem Walde (Heinrichs). Morgengebet (Mendelssohn). Feierabend (Knab). Die Nacht (Schubert). Ständchen (Neubner). Unter der Linde (Wagner-Schönkirch). Swabian Dance Song (Moldenhauer). Der Kuckuck (Zureich).
3.30—Programme for Children.
4.30 (from *Mannheim*)—"*Love Songs for Old and Young*," *by the Mannheim Vocal Quartet.* Sixteenth Century. Bitte um Huld. Minnelied (de la Hale). Da unten im Tale (Brahms). Mein Mädel hat einen Rosenmund (Brahms). In der Ferne (Silcher). Wohin mit der Freud (Silcher). Sternennacht (Schulken).
5.0—*Orchestral Concert*, conducted by Gustav Görlich. Soloist: Hanne Schmitz (Soprano). March, Pariser Pflaster (Lehar). Overture, Lachendes Leben (Rust). Operetta Potpourri, Klänge aus Arkadien (Morena). Soprano Solos: (*a*) Dance Song from "The Czarevitch" (Lehar), (*b*) Song from "Peppina" (Stolz). Schatzwalzer (Joh. Strauss). Die türkische Scharwache (Michaelis). Soprano Solos: (*a*) Ich schenk mein Herz from "Die Dubarry" (Mackeben), (*b*) Ich weiss nicht, wie ich dir's sagen soll, from "Mein Leopold" (Ascher). March, Wien bleibt Wien (Schrammel).
6.15—Time and Sports Notes. 6.25—Talk: The South-West German Industrial Societies. 6.50—Talk on the Himalaya Expedition. 7.15—Time and Weather.
7.45—See Frankfurt.
8.30—See Frankfurt. 10.20—News Bulletin. 10.45—See *Hamburg*.
12.30 *a.m.* (*Sunday*)—Close Down.

TOULOUSE (France)

Radiophonie du Midi. 779 kc/s (385 m.); 8 kW.
Transmits at intervals from 12.45 p.m.
5.0 *p.m.*—Picture Transmission. 5.15—Symphony No. 1 (Beethoven).
5.30—News Bulletin. 5.45—Variety Music. 6.0—Songs from "Véronique" (Messager). 6.15—Dance Music. 6.30—News and Exchange.
6.45—"*Cello Solos.* Spanish Melody (Rubinstein). Simple aveu (Thomé) At Naples (Ronchini). Gavotte (Lully). Interlude (Chausson).
7.0—*Orchestral Music.* Selection from "The Land of Smiles" (Lehár). La voix des Cloches (Luigini).
7.15—Light Music. 7.30—News and Racing Results. 7.45—Accordion Solos. 8.0—Military Music. 8.15—*Songs from Opéra-Comique.* Selections from "Les Dragons de Villars" (Maillart), "The Daughter of the Regiment" (Donizetti), and "La Bohème" (Puccini). 8.30—Selections by a Viennese Orchestra.
9.0—*Concert.* Selections from "Romeo and Juliet" (Berlioz). Selection from "Manon" (Massenet). Selections from "Lakmé" (Delibes). Selections from "L'Enfant prodigue" (Debussy).
10.0—Accordion Solos. 10.15—*Military Music.* Overture, "Der Freischütz" (Weber). Air with Variations on a Swiss Theme (Moler).
10.30—News Bulletin.
10.45—*Operetta Music.* Selections from "The Merry Widow" (Lehár), "The Dollar Princess" (Fall), "The Czardas Princess" (Kálmán), and "The Girl in the Taxi" (Gilbert).
11.0—*Concert.* March of the Accordionists (Marceau). Souvenir de la Varenne. Serenade (Gounod). L'étoile d'amour (Delmet). Frimousette (Marceau). A la Poste (Bach and Laverne). Le p'tit quinquin (Desrousseaux). Meditation from "Thaïs" (Massenet). Selection (Puig). La Paloma (Yradier). Selection from "Manon" (Massenet). Selection from "Rigoletto" (Verdi). In the interval at 11.15—North African News.
12 *midnight*—Weather, Announcements and Close Down.

TRIESTE (Italy)

Ente Italiano Audizioni Radiofoniche. 1,211 kc/s (247.7 m.); 10 kW.
Transmits at intervals from 8.15 a.m
7.5 *p.m.*—*Quintet Concert.* Keep Smilin' (Raymond). Selection (Holländer). Selection from "Gipsy Love" (Lehár). Selection (Berger). Selection from "André Chénier" (Giordano). Traumideale (Fucik). Rubacuori (Montagnini). In the interval at 7.25—French Lesson on Gramophone Records.
8.0 till Close Down—See *Turin*.

TURIN (Italy)

Ente Italiano Audizioni Radiofoniche. 1,096 kc/s (273.7 m.); 7 kW. Relayed by *Milan*, 905 kc/s (331.5 m.) and *Genoa*, 959 kc/s (312.8 m.).
Transmits at intervals from 8.15 a.m.
7.5 *p.m.*—Concert of Variety Music.
7.30—Time Signal and Programme Announcements. 7.31—Light Music on Gramophone Records. 8.0—Giornale Radio and Weather Report.
8.15—*Programme of Light Music.* Overture, "Die schöne Galathee" (Suppé). My Hero, from "The Chocolate Soldier" (Oscar Straus). Ragazze belle (Penanti-Malvezzi).
8.45—Talk: Events and Problems.
9.0—Symphony Concert conducted by Arrigo Pedrollo. Soloist: Leo Petroni (Violin). Overture, "A Midsummer Night's Dream" (Mendelssohn). Norwegian Rhapsody (Svendsen). The Enchanted Castle (Berisso). Symphonic Poem (Berisso). Overture, "The Mastersingers" (Wagner). Romantic Concerto for Violin and Orchestra (Zandonai). In the interval, Book Review. 11.0—Giornale Radio and Dance Music relayed from the Fiaschettina Toscana.
11.55—News Bulletin.

VIENNA (Austria)

Radio-Wien. 581 kc/s (517 m.); 15 kW. Relayed by *Graz*, 852 kc/s (352.1 m.); *Innsbruck*, 1,058 kc/s (283 m.); *Klagenfurt*, 662 kc/s (453.2 m.); *Linz*, 1,220 kc/s (246 m.); and *Salzburg*, 1,373 kc/s (218 m.).
Transmits at intervals from 9.20 a.m.
5.20 *p.m.*—*Concert by the Eduard Pfleger Wind Instrument Orchestra.* Coronation March from "Die Folkunger" (Kretschmer). Overture, "Nakiris Hochzeit" (Lincke). Waltz, Fesche Mädeln (Ritzberger). Selection from the Ballet "Excelsior" (Marenok). Polka (Ludwig). Idyll, A Morning in the Forest (Walter). Overture, "Raymond" (Thomas). Waltz on Motives from "Fesche Geister" (Ziehrer). Viennese Song (Schemel). Hungarian Song (Blaton). Potpourri of the Works of Strauss (Kliment). March, Lachendes Leben (Blankenburg).
6.20—Talk: Moral Laws and Society.
6.50—Topical Talk. 7.15—Time Signal, Weather Report, Sports Notes and Programme Announcements.
7.30—Walter von Molo reads from his own Works. Introductory Talk by Edwin Rollett.
8.0—Concert of Light Music by the Vienna Symphony Orchestra, conducted by Josef Holzer. Soloists: Berta Kiurina (Soprano), and Guido Geraldini (Whistling Solos). Overture, "Mignon" (Thomas). Soprano Solo: Aria from "Fatinitza" (Suppé). Whistling Solos: (*a*) Schön Rosmarin (Kreisler), (*b*) Mein Liebeslied muss ein Walzer sein (Stolz). Soprano Solos: (*a*) Song from "La belle Hélène" (Offenbach), (*b*) Song from "Die Kätzchen" (Felix). Selection from "Der Göttergatte" (Lehár). Precieuse (Gillet). En chevauchant (Gillet). Whistling Solo: Waltz, Frühlingsstimmen (Johann Strauss). Potpourri, Wiener Spaziergänge (Komzak). Overture, "Die Fledermaus" (Johann Strauss).
9.45—News, Weather Report and Announcements. 10.0—Programme of Dance Music, by the Hanns Robert Korngold Jazz Band, with Charles Bakers (Vocalist).

WARSAW (Poland)

Polskie Radio. 212.5 kc/s (1,411 m.); 120 kW.
11.20 *a.m.*—Aviation Weather Report. 11.25—Interval. 11.45—Press Review. 11.58—Time Signal and Bugle Call from St Mary's Church, *Cracow*.
12.5 *p.m.*—Programme Announcements. 12.10—Educational Programme, relayed from *Lwów*. 12.45—Light Music on Gramophone Records. 1.20—Weather Forecast.
1.25—Interval. 1.35—Popular Music on Gramophone Records. 1.55—Interval.
2.45—Variety Music on Gramophone Records. 3.5—Economic Report and Exchange Quotations. 3.15—Variety Music on Gramophone Records. 3.25—Review of Periodicals.
3.45—Hydrographic Report. 3.50—Light Music on Gramophone Records. 4.10—Talk on Contemporary Poland.
4.30—Light Music on Gramophone Records. 5.10—Talk: Sigismond III, relayed from *Cracow*, 959 kc/s (312.8 m.). 5.35—Talk on Music.
6.5—Programme for Children, relayed from *Wilno*, 533 kc/s (563 m.).
6.30—Music for Children. 6.50—Miscellaneous Items. 7.15—Agricultural Correspondence. 7.25—Programme Announcements. 7.30—Sports Notes. 7.35—Light Music on Gramophone Records. 7.45—Radio Journal. 8.0—"On the Horizon."
8.15—*Concert of Light Music by the Station Orchestra*, conducted by Stanislaus Nawrot. Soloists: Mme. Czarnecka-Orwicz (Vocalist), Jean Lavrusiewicz (Hawaiian Guitar), and Louis Urstein (Pianoforte). Overture, "Casanova" (Lincke). Miniature Suite (Coates). Three Songs. Hawaiian Guitar Solos: (*a*) Salut japonais (Nobles), (*b*) Waltz, Momi (Cramer), (*c*) Kentucky (Smith). Potpourri, Musical Jokes (Worch). Hawaiian Guitar Solos: (*a*) Waltz, Drowsy Waters (de Lane), (*b*) Hawaiian Foxtrot (Kollo). Songs: (*a*) Song (Spoliansky), (*b*) Chrysanthemum Song from "Victoria and her Hussar" (Abraham). Waltz, Ganz allerliebst (Waldteufel). Polka (Nedbal). Intermezzo and March (Marzec). 9.55—Reading.
10.10—Chopin Pianoforte Recital by Henri Sztompka. Nocturne in C Sharp Minor, Op. 27. Sonata in B Flat Minor.
10.40—Radio Journal. 10.45—Weather and Police News. 10.50—Dance Music, relayed from the Hotel Polonia. 12 *midnight* (approx.)—Close Down.

WILNO (Poland)

533 kc/s (563 m.); 16 kW.
Transmits at intervals from 11.58 a.m.
6.50 *p.m.*—Social Work Review.
7.0—Review of the Week in Lithuanian. 7.15—Programme for Students.
7.30—See *Warsaw*. 7.35—Programme Announcements and Miscellaneous Items. 7.45—See *Warsaw*.
8.15—Orchestral Concert. 8.35—Request Concert of Gramophone Records. 9.55—See *Warsaw*. 11.0—Literary Programme. 11.30—Dance Music on Gramophone Records.
12 *midnight* (approx.)—Close Down.

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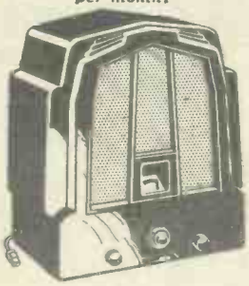

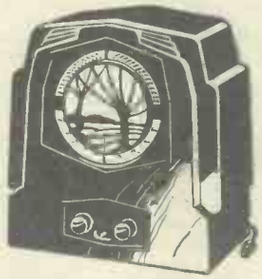

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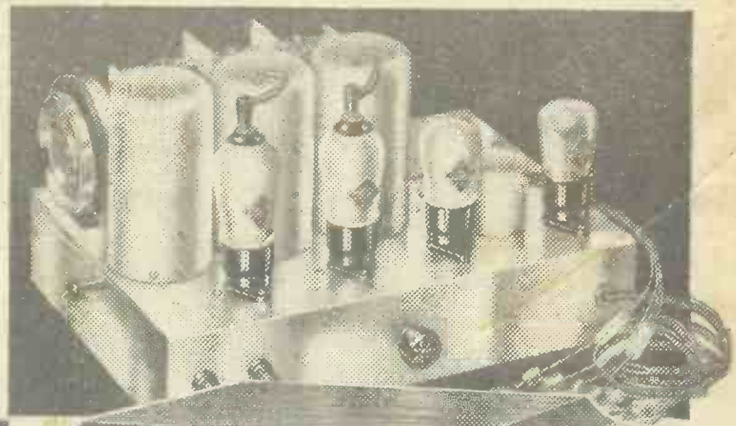
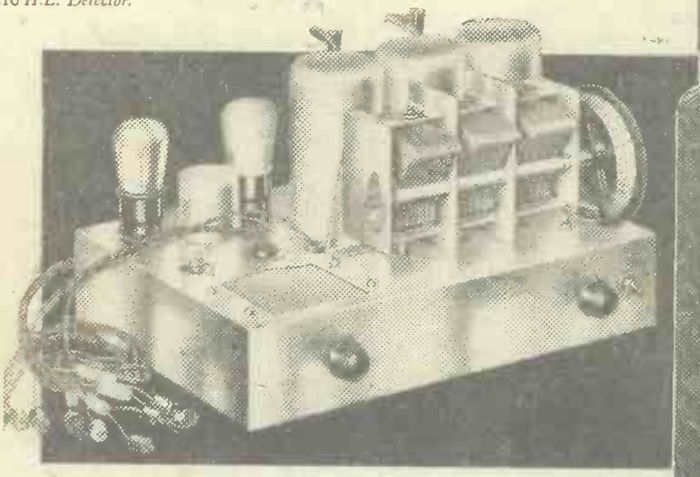


This is a rear view of the chassis in which are shown the Cossor Metallised Variable-Mu and Detector Valves. Observe also the metal coil "pots." The knob on the left controls the wavechange while the gramophone pick-up plug can also be seen. Note the clearly marked multi-way battery lead.

The illustration below shows the front of the chassis of the Cossor Model 732. Note the triple-gang condenser with its drum-drive control, the volume and reaction knobs and on-off switch. On the left is the Cossor 220 P. Output Valve, next to it is the Cossor Metallised 210 H.L. Detector.



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